PB81-159592

Water Resources Data for New Hampshire and Vermont

(U.S.) Geological Survey
Boston, MA

Dec 80

U.S. Department of Commerce
National Technical Information Service
NTIS

BIBLIOGRAPHIC INFORMATION

PB81-159592

Water Resources Data for New Hampshire and Vermont.

Dec 80

PERFORMER: Geological Survey, Boston, MA. Water Resources Div.
USGS/WRD/HD-80/018, USGS-WDR-NH-VT-79-1

See also PB80-145295.

Water-resources data for the 1979 water year for New Hampshire and Vermont consist of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; and water levels and water quality of wells. This report contains discharge records for 78 gaging stations, stage records for 3 lakes, monthend contents for 26 lakes and reservoirs, water-quality data for 9 gaging stations, and water levels for 40 observation wells.

KEYWORDS: *Ground water, *Surface waters, *New Hampshire, *Vermont, *Water quality data, *Hydrologic data.

Available from the National Technical Information Service, Springfield, Va. 22161

PRICE CODE: PC A09/MF A01

PB81-159592

Water Resources Data for New Hampshire and Vermont

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NH-VT-79-1

WATER YEAR 1979

Prepared in cooperation with the States of New Hampshire and Vermont and with other agencies

REPRODUCED BY
NATIONAL TECHNICAL
INFORMATION SERVICE
U.S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA 22161

CALENDAR FOR WATER YEAR 1979

1978

OCTOBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

NOVEMBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

DECEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

1979

JANUARY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

FEBRUARY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

MARCH

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

APRIL

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

MAY

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

JUNE

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

JULY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

AUGUST

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

SEPTEMBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

Water Resources Data for New Hampshire and Vermont

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NH-VT-79-1

WATER YEAR 1979

Prepared in cooperation with the States of New Hampshire and Vermont and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR
CECIL D. ANDRUS, Secretary

GEOLOGICAL SURVEY
H. William Menard, Director

For additional information write to
District Chief, Water Resources Division
U.S. Geological Survey
150 Causeway Street
Boston, MA 02114

1980

50272-101

REPORT DOCUMENTATION PAGE

1. REPORT NO.
USGS/WRD/HD-80/018

2.

3. Recipient's Accession No.

4. Title and Subtitle

Water Resources Data for New Hampshire
and Vermont, Water Year 1979

5. Report Date
December 1980

6.

7. Author(s)

8. Performing Organization Rept. No.
USGS-WDR-NH-VT-79-1

Performing Organization Name and Address

U.S. Geological Survey
Water Resources Division
150 Causeway Street, Suite 1001
Boston, MA 02114

10. Project/Task/Work Unit No.

11. Contract(C) or Grant(G) No.
(C)
(G)

12. Sponsoring Organization Name and Address
U.S. Geological Survey
Water Resources Division
150 Causeway Street, Suite 1001
Boston, MA 02114

13. Type of Report & Period Covered
Annual
10-01-78 to 9-30-79

14.

15. Supplementary Notes

This report was prepared in cooperation with the States of New Hampshire and Vermont and with other agencies.

16. Abstract

Water-resources data for the 1979 water year for New Hampshire and Vermont consist of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; and water levels and water quality of wells. This report contains discharge records for 78 gaging stations, stage records for 3 lakes, monthend contents for 26 lakes and reservoirs, water-quality data for 9 gaging stations, and water levels for 40 observation wells. Also included are data for 18 crest-stage partial-record stations. Additional water data were collected at various sites, not part of the systematic data-collection program, and are published as miscellaneous measurements. A few pertinent stations (not included above) in bordering States and Province of Quebec are also included in this report. These data represent that portion of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in New Hampshire and Vermont.

17. Document Analysis a. Descriptors

*New Hampshire, *Vermont, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water levels, Water analyses.

18. Availability Statement

19. Security Class (This Report)

20. Security Class (This Page)

21. No. of Pages

22. Price

PREFACE

This report was prepared by personnel of the New England District of the Water Resources Division of the U. S. Geological Survey under the supervision of J. A. Baker, District Chief, and J. E. Biesecker, Regional Hydrologist, Northeastern Region. It was done in cooperation with the States of New Hampshire and Vermont, and with other agencies.

This report is one of a series issued by State. The general direction for the series is by J. S. Cragwall, Jr., Chief Hydrologist, succeeded by Philip Cohen, and by Philip Cohen, Assistant Chief Hydrologist for Scientific Publications and Data Management, succeeded by R. J. Dingman.

CONTENTS

Page
Preface III
List of stations, in downstream order, for which records are published VI
Introduction 1
Cooperation 1
Hydrologic conditions 3
Definition of terms 3
Downstream order and station number 10
Numbering system for wells and miscellaneous sites 10
Special networks and programs 10
Explanation of stage and water-discharge records 11
  Collection and computation of data 11
  Accuracy of field data and computed results 12
  Other data available 13
Explanation of water-quality records 13
  Collection and examination of data 13
  Water analysis 13
  Water temperature 13
  Sediment 13
Explanation of ground-water-level records 13
  Collection of data 13
Publications on techniques of water-resources investigations 14
Gaging station records 15
  Discharge at partial-record stations and miscellaneous sites 142
    Crest-stage partial-record stations 142
    Discharge measurements at miscellaneous sites 144
    Miscellaneous temperature and specific conductance measurements 147
Ground-water records 157
  Ground-water levels, by county 157
  Ground-water levels in New Hampshire 158
  Ground-water levels in Vermont 167
Index 173

ILLUSTRATIONS

Page
Figure 1. Map showing location of data-collection sites 2
2. Comparison of discharge at two long-term index gaging stations during 1979 water year with median discharge for period 1941-70 4
3. System for numbering wells and miscellaneous sites 10

TABLES

Factors for converting inch-pound units to International System Units (SI) ....inside back cover

SURFACE-WATER AND WATER-QUALITY STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

(Letters after station name designate type of data:
(d), discharge; (l), lake; (c) chemical; (b), biological; (t), water temperature)

NORTH ATLANTIC SLOPE BASINS

ANDROSCOGGIN RIVER BASIN

Androscoggin River:
Umbagog Lake:
  Magalloway River: Page
    Diamond River near Wentworth Location, NH (d) 15
Androscoggin River at Errol, NH (d) 16
Androscoggin River near Gorham, NH (d) 17

SACO RIVER BASIN

Saco River:
  Ellis River near Jackson, NH (d) 18
  Lucy Brook near North Conway, NH (d) 19
Saco River near Conway, NH (d) 20
  Ossipee River at Effingham Falls, NH (d) 21

PISCATAQUA RIVER BASIN

Salmon Falls River (head of Piscataqua River) at Milton, NH (d) 22
Piscataqua River:
  Oyster River near Durham, NH (d) 23
  Lamprey River near Newmarket, NH (d) 24
  Squamscott River:
    Little River:
      Dudley Brook near Exeter, NH (d) 25

MERRIMACK RIVER BASIN

Pemigewasset River (head of Merrimack River):
  Baker River:
    Stevens Brook near Wentworth, NH (d) 26
Pemigewasset River at Plymouth, NH (dc) 27
  Squam River at Ashland, NH (d) 29
  Smith River near Bristol, NH (dc) 30
  Lake Winnipesaukee:
    Poor Farm Brook near Gilford, NH (d) 32
  Lake Winnipesaukee at Weirs Beach, NH (l) 34
  Lake Winnipesaukee Outlet at Lakeport, NH (d) 35
  Winnipesaukee River at Tilton, NH (d) 36
Merrimack River:
  Contoocook River:
    Nubanusit Brook near Peterborough, NH (d) 37
  Contoocook River below Hopkinton Dam, at West Hopkinton, NH (d) 38
    West Branch Warner River near Bradford, NH (d) 39
    Blackwater River near Webster, NH (d) 40
Merrimack River at Concord, NH (cb) 41
  Soucook River near Concord, NH (d) 44
  Piscataquog River below Everett Dam, near East Weare, NH (d) 45
Merrimack River near Goffs Falls, below Manchester, NH (d) 46
  Souhegan River:
    Stony Brook:
      Stony Brook tributary near Temple, NH (d) 47
  Nashua River at Nashua, NH (c) 48
Merrimack River at Nashua, NH (c) 51
Reservoirs in Merrimack River basin 54

CONNECTICUT RIVER BASIN

Connecticut River:
  Big Brook near Pittsburg, NH (d) 55
Connecticut River at First Connecticut Lake, near Pittsburg, NH (d) 56
Connecticut River below Indian Stream, near Pittsburg, NH (d) 57
  Halls Stream near East Hereford, Quebec (d) 58
Connecticut River at North Stratford, NH (d) 59
  Upper Ammonoosuc River near Groveton, NH (d) 60
Connecticut River near Dalton, NH (d) 61
  East Branch Passumpsic River (head of Passumpsic River) near
    East Haven, VT (d) 62
  Passumpsic River:
    Moose River at Victory, VT (d) 63
    Moose River at St. Johnsbury, VT (d) 64
  Passumpsic River at Passumpsic, VT (d) 65
  Ammonoosuc River at Bethlehem Junction, NH (d) 66
  Ammonoosuc River near Bath, NH (d) 67
Connecticut River at Wells River, VT (dcb) 68
  Wells River at Wells River, VT (d) 72
  Waits River:
    East Orange Branch at East Orange, VT (d) 73
  Ompompanoosuc River at Union Village, VT (d) 74
  Mink Brook near Etna, NH (d) 75
  White River:
    Third Branch White River:
      Ayers Brook at Randolph, VT (d) 76

SURFACE-WATER AND WATER-QUALITY STATIONS, IN DOWNSTREAM ORDER

Page

NORTH ATLANTIC SLOPE BASINS--Continued

CONNECTICUT RIVER BASIN--Continued

White River at West Hartford, VT (d) 77
Connecticut River at West Lebanon, NH (d) 78
Mascoma River at Mascoma, NH (d) 79
Ottauquechee River at North Hartland, VT (d) 80
Sugar River at West Claremont, NH (d) 81
Black River at Covered Bridge at Weathersfield, VT (d) 82
Black River at North Springfield, VT (d) 83
Williams River at Brockways Mills, VT (d) 84
Saxtons River at Saxtons River, VT (d) 85
Connecticut River at North Walpole, NH (d) 86
Connecticut River at Walpole, NH (cbt) 87
West River at Jamaica, VT (d) 96
West River at Newfane, VT (d) 97
Ashuelot River near Gilsum, NH (d) 98
Ashuelot River below Surry Mountain Dam, near Keene, NH (d) 99
Otter Brook (head of The Branch) below Otter Brook Dam, near Keene, NH (d) 100
Ashuelot River at Hinsdale, NH (d) 101
Reservoirs in Connecticut River basin 102

HUDSON RIVER BASIN

Hudson River:
Batten Kill at Arlington, VT (d) 103
Hoosic River:
Walloomsac River near North Bennington, VT (d) 104

ST. LAWRENCE RIVER BASIN

St. Lawrence River:
Lake Champlain (head of Richelieu River):
Poultney River below Fair Haven, VT (d) 105
Otter Creek at Center Rutland, VT (d) 106
Otter Creek at Middlebury, VT (d) 107
Winooski River:
Stevens Branch:
Jail Branch at East Barre, VT (d) 108
North Branch Winooski River at Wrightsville, VT (d) 109
Reservoirs in Winooski River basin above Montpelier, VT 110
Winooski River at Montpelier, VT (d) 111
Dog River at Northfield Falls, VT (d) 112
Mad River near Moretown, VT (d) 113
Waterbury Reservoir (head of Little River) near Waterbury, VT (1) 114
Little River near Waterbury, VT (d) 115
Winooski River near Essex Junction, VT (dc) 116
Lamoille River at Johnson, VT (d) 118
Lamoille River at East Georgia, VT (d) 119
Missisquoi River near North Troy, VT (d) 120
Missisquoi River near East Berkshire, VT (d) 121
Lake Champlain at Burlington, VT (1) 122
Richelieu River (Lake Champlain) at Rouses Point, NY (lcb) 123
St. Francis River:
Lake Memphremagog (head of Magog River) at Newport, VT (1) 131
Black River at Coventry, VT (dcbt) 132
Barton River:
Clyde River at Newport, VT (d) 141

WATER RESOURCES DATA FOR NEW HAMPSHIRE AND VERMONT, 1979

INTRODUCTION

Water-resources data for the 1979 water year for New Hampshire and Vermont consist of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; and water levels and water quality of wells. This report contains discharge records for 78 gaging stations, stage records for 3 lakes, monthend contents for 26 lakes and reservoirs, water-quality data for 9 gaging stations, and water levels for 40 observation wells. Also included are data for 18 crest-stage partial-record stations. Additional water data were collected at various sites, not part of the systematic data-collection program, and are published as miscellaneous measurements. Locations of gaging stations, partial-record stations, and observation wells are shown in figure 1. A few pertinent stations (not included above) in bordering States and Province of Quebec are also included in this report. These data represent that portion of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in New Hampshire and Vermont.

Records of discharge or stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface water supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled, "Quality of surface waters of the United States." Records of ground-water levels were published from 1939 to 1974 in a series of water-supply papers entitled, "Ground-water levels in the United States." Water-supply papers may be consulted in libraries of the principal cities of the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, VA 22202.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with streamflow records. Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published as an official Survey report on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey water-data report NH-VT-79-1." Water-data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161.

COOPERATION

Organizations that assisted in collecting data through cooperative agreements with the Geological Survey in 1979 are:

New Hampshire: State Water Resources Board, G. M. McGee, Sr., chairman.

Vermont: State Department of Water Resources, R. A. LaRosa, acting commisioner; town of Springfield, P. W. Ruse, Jr., acting town manager, succeeded by M. J. Valuk, town manager.

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army, in collecting records for 43 gaging stations, and by the U.S. Environmental Protection Agency, for 2 water-quality stations published in this report.

Organizations supplying data are acknowledged in the station descriptions.

On waters adjacent to the international boundary, certain gaging stations are maintained by the United States (or Canada) under agreement with Canada (or the United States), and the records are obtained and compiled in a manner equally acceptable to both countries. These stations are designated as "international gaging stations."

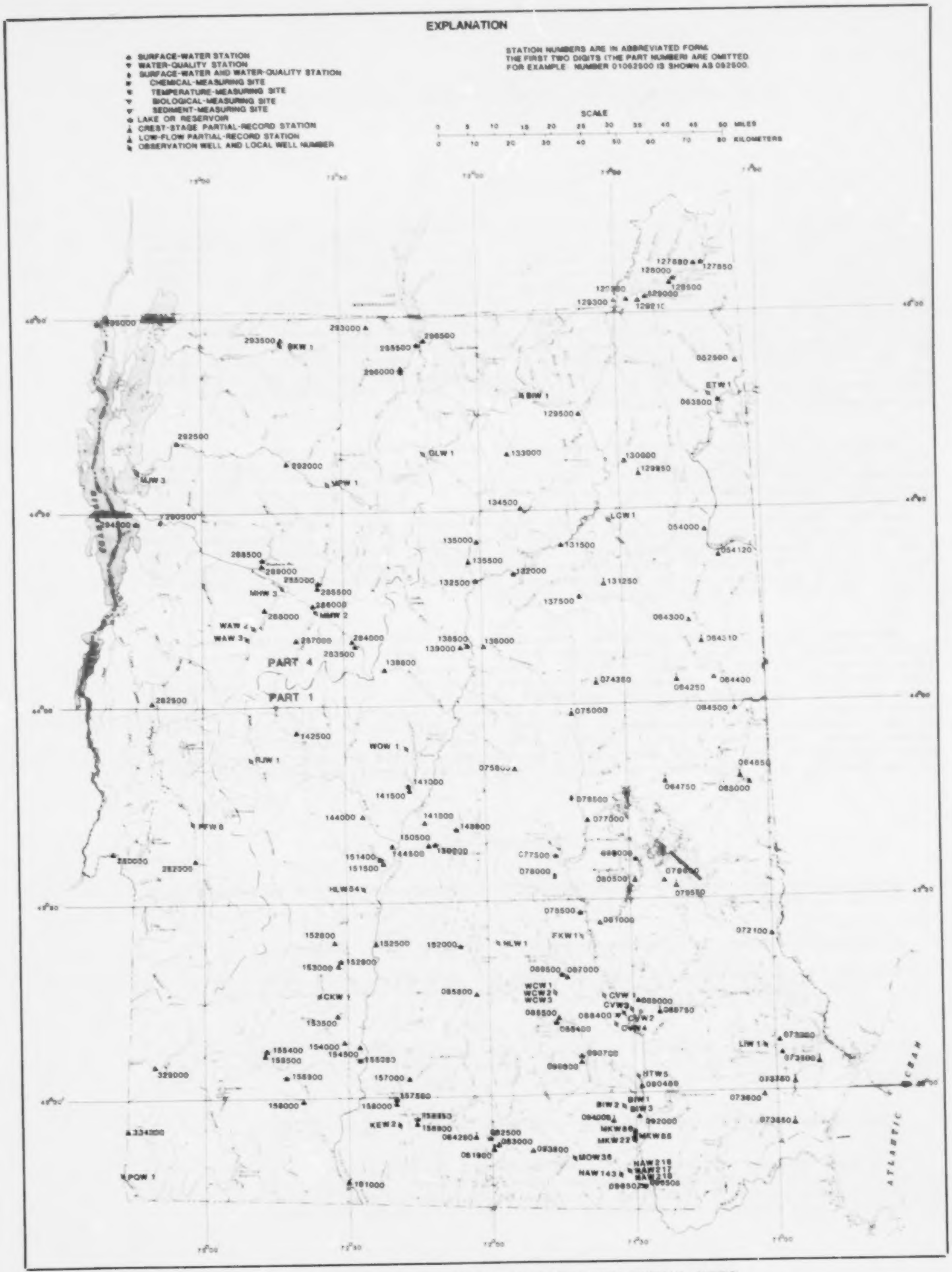
EXPLANATION
SURFACE-WATER STATION
WATER-QUALITY STATION
SURFACE-WATER AND WATER-QUALITY STATION
CHEMICAL-MEASURING SITE
TEMPERATURE-MEASURING SITE
BIOLOGICAL-MEASURING SITE
SEDIMENT-MEASURING SITE
LAKE OR RESERVOIR
CREST-STAGE PARTIAL-RECORD STATION
LOW-FLOW PARTIAL-RECORD STATION
OBSERVATION WELL AND LOCAL WELL NUMBER
STATION NUMBERS ARE IN ABBREVIATED FORM.
THE FIRST TWO DIGITS (THE PART NUMBER) ARE OMITTED.
FOR EXAMPLE: NUMBER 01062500 IS SHOWN AS 062500.
SCALE
0 5 10 15 20 25 30 35 40 45 50 MILES
0 10 20 30 40 50 60 70 80 KILOMETERS
PART 4
PART 1
ATLANTIC OCEAN
127880
127850
128000
128500
129000
129300
129210
295000
293000
293500
SKW 1
295500
296500
296000
052500
ETW 1
063500
BIW 1
129500
292500
292000
GLW 1
133000
130000
129850
MJW 3
MPW 1
134500
294500
290500
LCW 1
054000
135000
131500
054120
288500
289000
285000
285500
135500
132500
132000
131250
MHW 3
286000
MHW 2
288000
137500
064300
WAW 2
WAW 3
287000
284000
283500
138500
139000
138000
064310
139800
074280
064250
064400
282500
075000
064500
142500
WOW 1
RJW 1
075800
064850
141000
141500
064750
065000
078500
144000
141800
148800
077000
RFW 8
150500
151400
144500
150000
C77500
080000
280000
282000
151500
078000
080500
079800
079550
HLW 54
078500
081000
152800
152500
152000
NLW 1
FKW 1
072100
153000
152900
086500
087000
085800
WCW 1
WCW 2
WCW 3
CVW 1
089000
CVW 3
089750
CKW 1
088500
088400
CVW 2
088400
CVW 4
153500
155400
154000
154500
155283
155500
090700
090800
LIW 1
073280
073500
329000
155800
157000
HTW 5
090480
073780
157580
158000
158000
BIW 2
BIW 1
BIW 3
073600
158850
094000
092000
334300
KEW 2
158900
MKW 86
MKW 85
073650
084280
082500
083000
MKW 22
081900
083800
MOW 36
NAW 216
NAW 143
NAW 217
NAW 218
096500
POW 1
161000
73°00'
72°30'
72°00'
71°30'
71°00'
45°00'
44°30'
44°00'
43°30'
43°00'

FIGURE 1. LOCATION OF DATA-COLLECTION SITES

HYDROLOGIC CONDITIONS

At the beginning of the water year, runoff was in the normal range in southern Vermont and deficient (in the lower quartile of record) in New Hampshire and northern Vermont. October runoff was in the normal range in New Hampshire and all of Vermont except for the southwestern portion where it was excessive (in the upper quartile of record).

Runoff during November and December was much lower and was deficient in both months except in southwestern Vermont where it was in the low-normal range. A new monthly low for November for period of record occurred at index station Pemigewasset River at Plymouth, NH (October 1903-) and the previous low of November 1948 was equalled at Passumpsic River at Passumpsic, VT (October 1928-).

Runoff increased sharply and was excessive throughout both states in January with monthly means ranging from 142 to 204 percent of median. Runoff declined in February, was 144 percent of median in southeastern New Hampshire, was deficient in northern Vermont and New Hampshire, and was slightly below median elsewhere in both states.

A combination of warm temperatures, snowmelt, and rainfall produced excessive runoff throughout both states during March. Second highest runoff for March for period of record occurred at Passumpsic River at Passumpsic, VT, fourth highest occurred at Pemigewasset River at Plymouth, NH and Lamprey River near Newmarket, NH (July 1934-), and fifth highest occurred at White River at West Hartford, VT (June 1915-).

Runoff for the six-month period October to March was excessive in Vermont and was above median in New Hampshire.

Runoff for the following five months was in the normal range in Vermont and New Hampshire except for July when it was deficient in southeastern, central, and northern New Hampshire and northern Vermont. Runoff increased in September in both states and was excessive in Vermont.

Runoff for the six-month period April to September was in the normal range and ranged from 88 to 105 percent of median.

Runoff for the water year was in the normal range except for southwestern Vermont where it was excessive.

Figure 2, for which records of two long-term gaging stations were used, shows a comparison of the monthly and yearly mean discharge for the 1979 water year with the median discharge for the period 1941-70.

During the 1979 water year, ground-water levels in the States of New Hampshire and Vermont fluctuated as follows:

New Hampshire: At the beginning of the water year, ground-water levels were below normal throughout New Hampshire and, except for the southern third of the State, continued below normal until early March. In the southern part of the State, water levels rose during December and were in the normal range during January and February. Southern border townships had above-normal water levels during January and February.

In response to spring recharge during March, April, and May, ground-water levels rose to the normal range in the central and northern parts of the State and to the above-normal range in the southern third of the State.

Seasonal water-level declines occurred throughout the State from June through September. As a result, levels generally ranged from below normal in the northern part of the State to normal in the southern part, except that the southern border townships had above-normal levels.

Vermont: At the beginning of the water year, ground-water levels were below normal throughout the State. Although some normal and above-normal levels were recorded at the end of October in the western part of the State, below-normal levels generally continued until early January. By the end of January, levels ranged from above normal in the southern part to below normal in the northeastern part of the State.

Although levels were generally normal in February, spring recharge produced above-normal levels by the end of March. Seasonal water-level declines generally began in April and levels remained normal through the end of the water year. Exceptions were above-normal levels in parts of southern Vermont in May and September, and below-normal levels in northern Vermont at the end of July and in the northeastern part of the State during August.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting inch-pound units to International System of Units (SI) on the inside of the back cover.

Algae are mostly aquatic single-celled, colonial, or multicelled plants, containing chlorophyll and lacking roots, stems, and leaves.

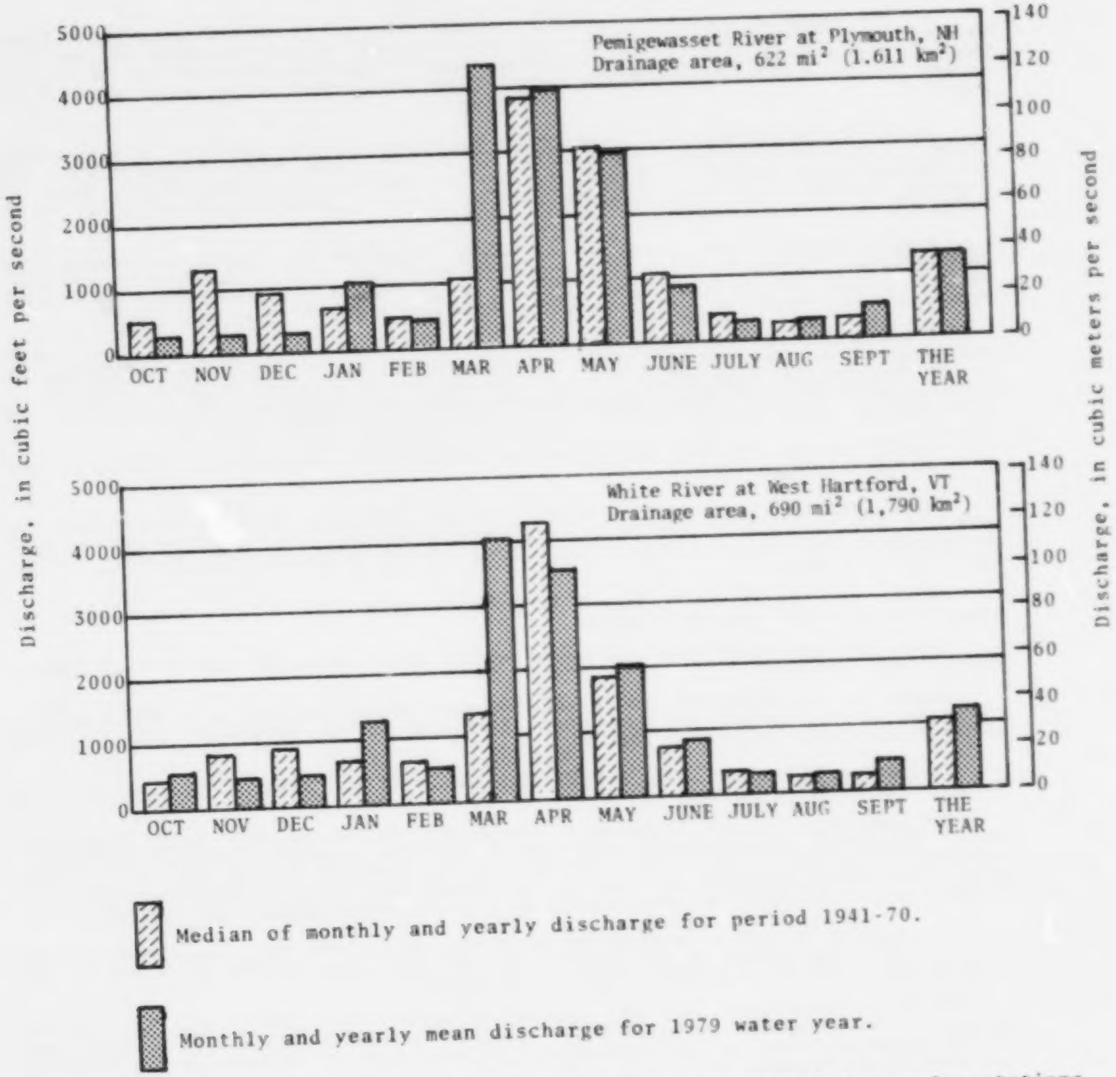

Figure 2.--Comparison of discharge at two long-term index gaging stations during 1979 water year with median discharge for period 1941-70.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells or springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer, tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, spherical, rod-like, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. These bacteria are defined as organisms which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ±1.0°C on M-Endo medium (nutrient medium for bacterial growth). Concentrations are expressed as number of colonies per 100 mL (milliliters) of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warmblooded animals. They are often used as indicators of the sanitary quality of water. These bacteria are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ±0.2°C on M-FC medium (nutrient medium for bacterial growth). Concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found in the intestines of warmblooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. These bacteria are defined as all organisms which produce red or pink colonies within 48 hours at 35°C ±1.0°C on KF Streptococcus agar (nutrient medium for bacterial growth). Concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the unconsolidated material of which the bottom of a stream, lake, pond, reservoir, or estuary is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, used for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry-mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. Ash-mass values of zooplankton and phytoplankton are expressed in g/m^3 (grams per cubic meter), and ash-mass values of periphyton and benthic organisms are expressed in g/m^2 (grams per square meter).

Biomass pigment ratio is the ratio of organic mass in mg/m^2 (milligrams per square meter) to the mass of chlorophyll *a*, mg/m^2.

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash, and sediment in the sample. Dry-mass values are expressed in the same units as ash mass.

Bottom material: See Bed material.

Recoverable from bottom material is the amount of a given constituent in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by digestion treatment and thus determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Total in bottom material is the total amount of a given constituent in a representative sample of bottom material. This term is used only when analytical procedure assures measurement of at least 95 percent of the constituent determined. Knowledge of the expected form of the constituent in the sample, as well as analytical methodology used, is required to judge when results should be reported as "total in bottom material."

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, about 646,000 gallons, or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in water, and gives an approximation of the amount of organic and reducing material present.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the most commonly reported green pigments in plants.

Color is expressed in units of the platinum-cobalt scale A unit of color is produced by one milligram per liter of platinum in the form of the chloroplatinate ion.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (FT^3/S, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.2832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to that material in a representative water sample which passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Diversity index is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = -\sum_{i=1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

Where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to a positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Hydrologic unit is a geographic area representing part of all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

Measuring point (MP) is a permanent reference point from which the distance to the water surface in a well is measured to obtain the water level.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per kilogram (UG/KG, ug/kg) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the constituent per unit mass (kilogram) of sediment.

Micrograms per liter (UG/L, ug/L) is a unit expressing the concentration of chemical constituents in a sample as the mass (micrograms) of constituent per unit volume (liter) of sample. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in a sample. Milligrams per liter represents the mass of constituent per unit volume of sample. Concentration of suspended sediment also is expressed in milligrams per liter and is based on the mass of sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derieved from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Organism count/area refers to the number of organisms enumerated in a sample and adjusted to the number per unit area of habitat, usually square meters (m^2). Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organisms count/volume refers to the number of organisms enumerated in a sample and adjusted to the number per unit volume, usually in cells per milliliter (mL) or liter (L). Numbers of planktonic organisms are expressed in these terms.

Partial-record station is a particular site where limited streamflow and(or) water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay..........	0.00024 - 0.004	Sedimentation.
Silt..........	.004 - .062	Sedimentation.
Sand..........	.062 - 2	Sedimentation or sieve.
Gravel........	2.0 - 64.0	Sieve.

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Periphyton refers to the assemblage of organisms attached to and growing upon submerged surfaces. While primarily consisting of algae, the assemblage may include bacteria, fungi, protozoa, rotifer, and other small organisms.

Pesticides are chemical compounds used to control undesirable plants and animals. The major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides are the two categories reported.

pH is a symbol denoting the negative logarithm (base 10) of the hydrogen ion concentration of a solution; pH values range from 0 to 14--the lower the value, the more acid is the solution; i.e., the more hydrogen ions it contains.

Phytoplankton are the plant part of the plankton communities which exist in standing waters. They are the primary source of food in their aquatic environments, and are commonly known as algae.

Picocurie (PCI, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or by volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is quantity of suspended sediment passing a section in a specified period.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bedload discharge. It is the total quantity of sediment, as measured by dry weight or volume, that is discharged during a given time.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Specific conductance is a measure of the ability of a water to conduct an electrical current and is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for estimating the dissolved-solids content of the water. Commonly, concentration of dissolved solids (in milligrams per liter) is about 65 percent of specific conductance (in micromhos per cm at 25°C). This relation is not constant from stream to stream or from well to well, and it may even vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and the volume of water per unit of time flowing in a channel.

Streamflow is the discharge that occurs in a natural channel Although the term "discharge" can be applied to flow of a canal, the word "streamflow" uniquely describes discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lived.

Natural substrates refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lived.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of the total concentration in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) that material retained on a 0.45 micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made by analyzing portions of material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer membrane filter. The term is used only when analytical procedure assures measurement of at least 95 percent of the constituent determined. Knowledge of the expected form of the constituent in the sample, as well as analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerning classification and naming of organisms. Classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common: For example, taxonomy of a particular mayfly, Hexagenia limbata is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	Hexageria
Species	Hexagenia limbata

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the water year.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour day.

Total (as used in tables of chemical analysis):

Total, recoverable is the amount of a given constituent in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. The term is used only when analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. Knowledge of the expected form of the constituent in the sample, as well as analytical methodology used, is required to judge when results should be reported as "total." (Note that the word "total" does double duty here, indicating the sample consists of a water-suspended sediment mixture and the analytical method determines all the constituent in the sample.)

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to previously published District annual basic-data reports.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in the front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station, such as 01094400, which appears just to the left of the station name includes the 2-digit part number "01" plus the 6-digit downstream-order number "094400."

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The well and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify wells or other sites within a 1-second grid. See figure 3 below.

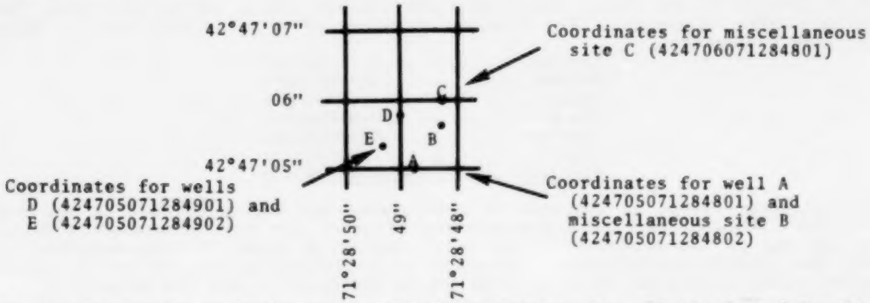
42°47'07"
Coordinates for miscellaneous site C (424706071284801)
06"
C
D
E
B
42°47'05"
A
Coordinates for wells D (424705071284901) and E (424705071284902)
Coordinates for well A (424705071284801) and miscellaneous site B (424705071284802)
71°28'50"
49"
71°28'48"

Figure 3.--System for numbering wells and miscellaneous sites (latitude and longitude)

A local well-numbering system is also used in this report. The local well number consists of a 2-letter code for the town in which the well is located followed by a "W" signifying that it is a well, and a sequential number. The local number is used to identify the location of observation wells on figure 1.

SPECIAL NETWORKS AND PROGRAMS

National stream-quality accounting network (NASQAN) is a collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated in the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected twice a year (at high and low flow) to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and Computation of Data

The base data collected at gaging stations consists of records of stage and measurements of discharge of streams and stage, surface area, and contents of lakes and reservoirs. In addition, observations of factors affecting the stage-discharge relation, weather records, and other information are used to supplement base data in determining the daily flow. Records of stage are obtained from a water-stage recorder that gives either a tape punched at selected time intervals or a continuous graph of the fluctuations. Measurements of discharge are made with a current meter, using the general methods adopted by the U.S. Geological Survey. These methods are described in standard textbooks and in the U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving discharge for any stage are prepared from stage-discharge relation curves. If extensions to rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables; then the monthly and yearly mean discharges are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors, based on individual discharge measurements and notes by hydrologists and observers, are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by ice during the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by hydrologists and observers, and comparable records of discharge for other stations in the same or nearby basins.

For some lake and reservoir stations, capacity tables giving the contents for any stage are prepared from stage-area-relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of contents is given. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge and stage. Location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information obtained later. Revisions of such records are usually published along with current records in one of the annual or compilation reports. For ease in finding such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are effected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use, the datum of the present gage referred to National Geodetic Vertical Datum; and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." "National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS" on page 7.

Information pertaining to the accuracy of the discharge records and to conditions that affect the natural flow at the gaging station is given under "REMARKS." For reservoir stations, information on the dam forming the reservoir, the capacity, outlet works, and spillway, and purpose and use of the reservoir is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE;" it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance.

Under "EXTREMES" are given first, extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, maximum discharge is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder, a crest-stage gage, or a nonrecording gage read at the time of the crest. If maximum gage height did not occur on the same day as maximum discharge, it is given separately. Similarly, minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with "EXTREMES FOR THE CURRENT YEAR;" if they are, all independent peaks, including the maximum for the year above the selected base with the time of occurrence and corresponding gage height are published in tabular format. Base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. Minimums for these stations are published in a separate paragraph following the table of peaks.

The daily table for stream-gaging stations gives mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also is usually expressed in cubic feet per second per square mile (line headed "CFSM"), and in inches (line headed "IN."). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharges are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. Methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For gaging stations on lakes and reservoirs, the data presented comprise a description of the station and a monthly summary table of contents. For some reservoirs, a table showing daily stage is given. A skeleton table of capacity at given stages is published for some reservoirs for which records are published on a daily basis.

Data collected at partial-record stations and miscellaneous sites are contained in three tables following the information for continuous record sites. The first is a table of discharge measurements at low-flow partial-record stations the second is a table of annual maximum stage and discharge at crest-stage stations, and the third is a table of discharge measurements at miscellaneous sites.

Accuracy of Field Data and Computed Results

Accuracy of streamflow data depends primarily on (1) stability of the stage-discharge relation or, if the control is unstable, frequency of discharge measurements, and (2) accuracy of observations of stage, measurements of discharge, and interpretation of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent of true value; "good," within 10 percent; and "fair," within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft^3/s; to tenths between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures above 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in adjustments for changes in reservoir contents. Even at those stations where adjustments are made, large errors in computed runoff may occur if the adjustments or losses are large in comparison with the observed discharge.

Other Data Available

Information of a more detailed nature than that published for most gaging stations, such as discharge measurements, gage-height records, and rating tables, is on file in the district office. Also, most gaging-station records are available in computer-usable form, and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and Examination of Data

Surface-water samples for analyses usually are collected at or near gaging stations. Quality-of-water records are given immediately following the discharge records for these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data, the period of daily record for parameters that are measured on a daily basis (specific conductance, pH, dissolved oxygen, and water temperature), extremes for the period of daily record, extremes for the current year, and general remarks.

Water Analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on a following page.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based on hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the district office.

Water Temperature

Water temperatures are measured at most water-quality stations. In addition, water temperatures are taken at time of most discharge measurements for surface-water stations. Large streams have a small diel temperature change while small, shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

Sediment

Suspended-sediment concentrations are determined periodically from samples collected by using depth-integrating samplers. Although data collected periodically may represent conditions only at the time of observation, such data are useful in establishing seasonal relations between quality and streamflow when predicting long-term sediment discharge characteristics of the stream.

EXPLANATION OF GROUND-WATER-LEVEL RECORDS

Collection of the Data

Only ground-water-level data from a basic network of 40 observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude, and (2) a local number that is provided for local needs.

Measurements are made in many types of wells, under varying conditions of access, and at different temperatures; hence, neither the method of measurement nor the equipment are standardized. At each observation well, however, the equipment and techniques used are those that will insure that measurements at each well are of consistent accuracy and reliability.

Water-level measurements are reported to the nearest hundredth of a foot with reference to land-surface datum (lsd), which is a datum plane that is approximately at land surface at each well. If known, the altitude of land-surface datum above National Geodetic Vertical Datum of 1929 is given in the well description. Height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom); water levels in wells not equipped with recording gages are reported for the end of each month.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-five manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. Material is grouped under major subject headings called books and further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. Reports listed below are for sale by U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office). Prices, effective July 1979, are subject to change. When ordering these publications, please give the series (U.S. Geological Survey Techniques of Water-Resources Investigations), title, book number, and chapter number.

1-D1 Water temperature-influential factors, field measurement, and data presentation, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages. $1.60.

1-D2 Guidelines for collection and field analysis of ground-water samples for selected unstable constituents by W.W. Wood: USGS-TWRI Book 1, Chapter D2 1976 24 pages. $0.85

2-D1 Application of surface geophysics to ground-water investigations, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages. $1.90.

2-E1 Application of borehole geophysics to water-resources investigations, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages. $1.75.

3-A1 General field and office procedures for indirect discharge measurements, by M. A. Benson and Tate Dalrymple: USGS-TWRI Book 3, Chapter A1. 1967. 30 pages $1.00.

3-A2 Measurement of peak discharge by the slope-area method, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages. $0.35.

3-A3 Measurement of peak discharge at culverts by indirect methods, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages. $0.40.

3-A4 Measurement of peak discharge at width contractions by indirect methods, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages. $1.00.

3-A5 Measurement of peak discharge at dams by indirect methods by Harry Hulsing: USGS--TWRI Book 3 Chapter A5. 1967. 29 pages. $0.35.

3-A6 General procedure for gaging streams, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages. $1.00.

3-A7 Stage measurements at gaging stations, by T. J. Buchanan and W. P. Somers: USGS-TWRI Book 3, Chapter A7. 1968. 28 pages. $1.40.

3-A8 Discharge measurements at gaging stations, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages. $1.25.

3-A11 Measurement of discharge by moving-boat method, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages. $1.20.

3-A12 Fluorometric procedures for dye tracing, by J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A12. 1968. 31 pages. $0.35. Not currently available.

3-B1 Aquifer-test design, observation, and data analysis, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages. $0.70.

3-B2 Introduction to ground-water hydraulics, a programed text for self-instruction, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages. $2.50.

3-C1 Fluvial sediment concepts, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages. $2.50.

3-C2 Field methods for measurement of fluvial sediment, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages. $2.50.

3-C3 Computation of fluvial-sediment discharge, by George Porterfield: USGS-TWRI Book 3, Chapter C3 1972. 66 pages. $2.10.

4-A1 Some statistical tools in hydrology, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1 1968. 39 pages. $1.60.

4-A2 Frequency curves, by H.C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages. $1.20.

4-B1 Low-flow investigations, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1 1972 18 pages. $0.65.

4-B2 Storage analyses for water supply, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages. $0.75.

4-B3 Regional analyses of streamflow characteristics, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3 1973. 15 pages. $0.65.

4-D1 Computation of rate and volume of stream depletion by wells, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages. $1.10.

5-A1 Methods for determination of inorganic substances in water and fluvial sediments, by M. W. Skougstad, M. J. Fishman, L. C. Friedman, D. E. Erdmann, and S. S. Duncan, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages. $10.00.

5-A2 Determination of minor elements in water by emission spectroscopy by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages. $0.80.

5-A3 Methods for analysis of organic substances in water, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages. $0.90.

5-A4 Methods for collection and analysis of aquatic biological and microbiological samples, edited by P. E. Greeson, T.A. Ehlke, G.A. Irwin, B.W. Lium, and K.V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages. $9.25.

5-A5 Methods for determination of radioactive substances in water and fluvial sediments, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages. $5.75.

5-C1 Laboratory theory and methods for sediment analysis, by H.P. Guy: USGS-TWRI Book 5, Chapter C1 1969. 58 pages. $2.10.

7-C1 Finite difference model for aquifer simulation in two dimensions with results of numerical experiments, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages. $2.30.

7-C2 Computer model of two-dimensional solute transport and dispersion in ground water by L. F. Konikow and J.D. Bredehoeft: USGS-TWRI Book 7, Chapter C2. 1978. 90 pages. $2.75

8-A1 Methods of measuring water levels in deep wells, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1 1968. 23 pages. $1.30.

8-B2 Calibration and maintenance of vertical-axis type current meters, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages. $1.10.

01052500 DIAMOND RIVER NEAR WENTWORTH LOCATION, NH

LOCATION.--Lat 44°52'40", long 71°03'25", Coos County, Hydrologic Unit 01040001, on left bank 1.0 mi (1.6 km) upstream from mouth and 1.6 mi (2.6 km) north of Wentworth Location.

DRAINAGE AREA.--153 mi^2 (396 km^2).

PERIOD OF RECORD.--July 1941 to current year.
Water-quality records: Water year 1954.

GAGE.--Water-stage recorder. Altitude of gage is 1,275 ft (389 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--38 years, 350 ft^3/s (9.912 m^3/s), 31.07 in/yr (789 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,630 ft^3/s (244 m^3/s) June 16, 1943, gage height, 10.66 ft (3.249 m), from rating curve extended above 4,300 ft^3/s (120 m^3/s); maximum gage height, 10.66 ft (3.249 m) June 16, 1943 and Mar. 7, 1979 (ice jam); minimum discharge, 6.8 ft^3/s (0.19 m^3/s) Aug. 27, 28, 1949, Sept. 1, 1952, gage height, 0.81 ft (0.247 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,600 ft^3/s (100 m^3/s) and maximums (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 7	0600	ice jam		*10.66	3.249	Apr. 27	1700	*5130	145	8.50	2.591
Mar. 26	0500	3660	104	7.44	2.268						

Minimum discharge, 17 ft^3/s (0.48 m^3/s) Aug. 1, gage height, 1.08 ft (0.329 m).

DISCHARGE, STREAM (CUBIC FEET PER SECOND), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	95	52	50	100	63	1610	1750	891	65	22	63
2	131	84	51	75	105	64	1190	1380	550	97	23	43
3	89	77	50	1130	100	65	804	1010	503	110	71	39
4	52	71	48	748	96	71	621	1420	462	75	69	81
5	62	67	47	473	93	95	608	1350	362	52	35	50
6	91	64	47	315	88	540	522	903	631	45	35	100
7	105	62	50	270	83	2040	433	693	414	40	27	725
8	79	60	58	230	80	1720	390	637	295	36	25	270
9	62	59	64	205	76	992	366	782	244	33	24	139
10	51	56	60	185	73	575	338	1040	223	30	31	96
11	44	54	73	170	71	432	295	740	196	29	105	78
12	41	51	71	155	68	325	280	547	386	29	69	72
13	40	44	67	145	66	252	322	483	444	29	51	60
14	90	69	63	135	65	277	499	456	297	26	54	57
15	282	162	60	125	63	428	527	386	207	24	88	475
16	175	122	57	120	62	369	533	334	164	24	93	243
17	105	72	54	115	61	320	521	291	149	36	52	142
18	78	220	53	105	60	267	529	252	142	39	37	106
19	70	270	52	105	59	265	577	230	121	153	36	102
20	76	146	53	100	58	245	544	205	104	85	58	108
21	76	75	53	99	57	230	767	188	90	45	50	89
22	65	72	52	97	56	334	1040	193	79	33	37	77
23	60	63	50	93	56	729	1240	172	72	27	30	67
24	62	58	48	99	56	1340	1960	177	74	24	27	59
25	59	56	47	95	57	2630	1970	1000	75	21	61	54
26	58	55	47	90	58	3130	2650	1350	67	21	86	50
27	315	54	47	88	59	1750	4210	724	56	24	78	45
28	316	53	46	87	61	883	4590	537	51	24	180	42
29	181	53	46	86	---	651	3460	1000	50	22	99	44
30	129	52	45	91	---	563	2330	844	46	19	68	44
31	105	---	45	97	---	1050	---	834	---	18	109	---
TOTAL	3169	2496	1656	5978	1987	22695	35726	21908	7445	1335	1830	3620
MEAN	102	83.2	53.4	193	71.0	732	1191	707	248	43.1	59.0	121
MAX	316	270	73	1130	105	3130	4590	1750	891	153	180	725
MIN	20	44	45	50	56	63	280	172	46	18	22	39
CFSM	.67	.54	.35	1.26	.46	4.78	7.78	4.62	1.62	.28	.39	.79
IN.	.77	.61	.40	1.45	.48	5.52	8.69	5.33	1.81	.32	.44	.88

```
CAL YR 1978  TOTAL  121827   MEAN 334   MAX  4600   MIN 17   CFSM 2.18   IN 29.62
WTR YR 1979  TOTAL  109845   MEAN 301   MAX  4590   MIN 18   CFSM 1.97   IN 26.71
```

01053500 ANDROSCOGGIN RIVER AT ERROL, NH

LOCATION.--Lat 44°46'57", long 71°07'46", Coos County, Hydrologic Unit 01040001, on right bank 0.4 mi (0.6 km) downstream from Errol Dam, 0.4 mi (0.6 km) northeast of Errol, and 0.6 mi (1.0 km) upstream from Clear Stream.

DRAINAGE AREA.--1,045 mi² (2,707 km²).

PERIOD OF RECORD.--Discharge: January 1905 to current year. October 1922 to November 1943, monthly discharge only, published in WSP 1301. Prior to 1922, published as "at Errol Dam."
Water-quality records: Water years 1955, 1958-59.

REVISED RECORDS.--WSP 1001: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,227.30 ft (374.081 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 8, 1943, nonrecording gage at Errol Dam at datum 5.0 ft (1.52 m) higher.

REMARKS.--Records good. Flow regulated by Rangeley, Mooselookmeguntic, Richardson, Aziscohos, and Umbagog Lakes (Reservoirs in Androscoggin River basin), combined usable capacity, 28,100,000,000 ft³ (796,000,000 m³), with final regulation at Errol Dam. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--74 years, 1,910 ft³/s (54.09 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 16,100 ft³/s (456 m³/s) May 22, 1969; minimum daily, leakage only at various times when gates in dam were closed.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 6,090 ft³/s (172 m³/s) Apr. 29; minimum daily, 806 ft³/s (22.8 m³/s) Mar. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1740	1340	1390	1060	1280	1350	2770	4730	4750	1620	1710	1540
2	1720	1350	1370	944	1300	1350	2850	3380	4750	1550	1710	1550
3	1730	1380	1420	880	1290	1320	2750	2890	4730	1440	1680	1550
4	1730	1370	1450	1230	1300	1310	2470	4010	4240	1400	1660	1560
5	1720	1360	1410	1170	1320	1300	1860	4980	3860	1520	1670	1560
6	1640	1380	1370	1050	1360	1170	1460	5080	3860	1580	1670	1490
7	1620	1400	1370	1230	1370	1760	1170	4870	3860	1580	1670	1170
8	1650	1380	1360	1080	1380	1880	1190	4320	3720	1620	1680	1230
9	1690	1380	1330	1120	1360	1900	1270	2890	3500	1680	1680	1490
10	1710	1370	1330	1210	1370	1640	1250	1930	2270	1680	1670	1530
11	1710	1330	1360	1230	1440	1450	1260	2740	1770	1650	1630	1500
12	1720	1320	1250	1210	1500	1210	1340	2940	1700	1660	1640	1520
13	1720	1350	1160	1190	1500	1070	1330	2530	1480	1660	1650	1520
14	1610	1340	1160	1160	1510	1060	1320	2330	1610	1660	1630	1600
15	1490	1330	1180	1120	1510	1090	1230	1770	1710	1660	1610	1520
16	1450	1370	1160	1150	1480	1130	1120	1480	1710	1670	1600	1430
17	1460	1380	1130	1170	1440	1160	1040	1540	1730	1670	1610	1470
18	1520	1230	1130	1220	1420	1270	1060	1250	1760	1650	1610	1580
19	1570	1180	1200	1220	1420	1350	1080	1690	1770	1590	1620	1650
20	1550	1290	1210	1220	1390	1350	1100	1530	1790	1530	1630	1630
21	1480	1330	1170	1220	1370	1440	1120	1650	1820	1620	1630	1590
22	1530	1300	1150	1210	1360	1200	1200	1720	1840	1690	1640	1590
23	1570	1320	1150	1190	1360	898	1650	1700	1850	1690	1630	1590
24	1550	1330	1160	1190	1350	806	2170	1840	1860	1680	1650	1590
25	1540	1320	1170	1190	1350	1600	2860	4150	1870	1670	1660	1580
26	1490	1410	1150	1200	1340	3260	3590	4950	1880	1670	1660	1590
27	1410	1510	1140	1180	1350	3740	4510	4730	1890	1670	1590	1610
28	1340	1480	1140	1170	1350	3590	5470	3910	1890	1670	1580	1630
29	1420	1450	1140	1140	---	3170	6090	3700	1730	1680	1740	1570
30	1460	1400	1140	1160	---	2950	5960	4300	1650	1680	1820	1500
31	1370	---	1130	1220	---	2750	---	4720	---	1680	1650	---
TOTAL	48910	40680	38380	35934	38770	52524	65540	96250	74850	50470	51280	45930
MEAN	1578	1356	1238	1159	1385	1694	2185	3105	2495	1628	1654	1531
MAX	1740	1510	1450	1230	1510	3740	6090	5080	4750	1690	1820	1650
MIN	1340	1180	1130	880	1280	806	1040	1250	1480	1400	1580	1170

CAL YR 1978 TOTAL 867106 MEAN 2376 MAX 7200 MIN 996
WTR YR 1979 TOTAL 639518 MEAN 1752 MAX 6090 MIN 806

01054000 ANDROSCOGGIN RIVER NEAR GORHAM, NH

LOCATION.--Lat 44°26'10", long 71°11'27", Coos County, Hydrologic Unit 01040001, on right bank at Pulsifer Rips, 2.2 mi (3.5 km) downstream from Dead River, and 4.0 mi (6.4 km) upstream from Gorham.

DRAINAGE AREA.--1,363 mi^2 (3,530 km^2).

PERIOD OF RECORD.--October 1913 to current year. October 1922 to Feburary 1929, monthly discharge only, published in WSP 1301. Prior to October 1928, published as "at Berlin."

GAGE.--Water-stage recorder. Datum of gage is 832.88 ft (253.862 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1922, nonrecording gage showing head and tailwater elevations at site 3 mi (5 km) upstream at different datum.

REMARKS.--Records good except those for periods of no gage-height record, Nov. 9 to Dec. 11, July 26 to Aug. 24, which are fair. Flow regulated by Rangeley, Mooselookmeguntic, Richardson, Aziscohos, and Umbagog Lakes, combined usable capacity, 28,100,00,000 ft^3 (796,000,000 m^3), with final regulation at Errol Dam 35 mi (56 km) upstream. Diurnal fluctuation caused by powerplant 0.8 mi (1.3 km) upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--66 years, 2,472 ft^3/s (70.01 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 20,000 ft^3/s (566 m^3/s) June 18, 1917, Apr. 30, 1923; minimum daily, 795 ft^3/s (22.5 m^3/s) Mar. 15, 1948.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,300 ft^3/s (292 m^3/s) Apr. 28, gage height, 7.66 ft (2.335 m); minimum daily, 1,210 ft^3/s (34.3 m^3/s) Dec. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1830	1600	1600	1400	1460	1570	4880	7690	6270	1820	1800	1780
2	1920	1550	1550	1550	1500	1580	4870	5740	5800	1910	1850	1660
3	1890	1570	1600	2500	1520	1580	4480	4200	5530	1840	1830	1650
4	1870	1560	1700	2290	1480	1570	4030	4740	5270	1630	1800	1660
5	1890	1540	1680	2160	1540	1650	3550	6400	4510	1610	1780	1680
6	1900	1550	1620	1690	1530	2010	3010	6300	4900	1690	1770	1710
7	1850	1590	1600	1620	1530	3510	2290	6010	4610	1710	1770	1780
8	1820	1570	1610	1740	1600	4280	2050	5530	4350	1700	1760	1490
9	1820	1580	1610	1460	1600	3790	2050	4630	4100	1780	1790	1510
10	1840	1570	1560	1540	1570	3360	2050	3110	3540	1790	1820	1770
11	1840	1540	1530	1510	1550	2800	1920	2940	2460	1770	1800	1650
12	1840	1530	1550	1510	1600	2420	1980	3500	2420	1760	1800	1660
13	1850	1520	1440	1490	1620	1920	2070	3380	2260	1760	1830	1660
14	1950	1560	1370	1510	1620	1870	2420	2920	1940	1750	1810	1610
15	2030	1540	1330	1450	1670	1920	2570	2730	2000	1730	1800	2020
16	1890	1530	1380	1400	1700	1970	2550	2020	1970	1770	1790	1780
17	1730	1580	1340	1370	1650	1890	2320	1930	1930	1770	1770	1690
18	1680	1720	1270	1430	1630	1830	2270	1950	1960	1840	1730	1660
19	1720	1670	1210	1430	1680	1940	2390	1580	1920	1930	1770	1740
20	1770	1610	1330	1420	1670	1910	2400	2010	1910	1750	1780	1800
21	1710	1590	1410	1480	1600	1990	2640	1870	1920	1650	1770	1720
22	1650	1560	1330	1500	1570	2320	2990	2040	1960	1750	1750	1720
23	1740	1540	1320	1460	1550	2470	3250	2000	1950	1780	1740	1720
24	1770	1530	1330	1440	1570	3090	4380	2030	1970	1770	1710	1700
25	1790	1510	1350	1460	1580	5600	5090	4090	1940	1760	1750	1690
26	1780	1500	1350	1460	1580	8040	6210	7290	1960	1770	1910	1690
27	1870	1600	1330	1450	1570	6840	8220	6780	2000	1760	1870	1700
28	1880	1700	1280	1440	1580	5770	9910	5550	2000	1780	1760	1710
29	1670	1650	1300	1420	---	4950	9420	5340	1970	1800	1760	1750
30	1760	1620	1250	1390	---	4340	8750	5650	1790	1800	1910	1640
31	1670	---	1320	1420	---	4460	---	6450	---	1800	1900	---
TOTAL	56220	47280	44450	48390	44320	95240	117010	128400	89110	54730	55680	51000
MEAN	1814	1576	1434	1561	1583	3072	3900	4142	2970	1765	1796	1700
MAX	2030	1720	1700	2500	1700	8040	9910	7690	6270	1930	1910	2020
MIN	1650	1500	1210	1370	1460	1570	1920	1580	1790	1610	1710	1490

CAL YR 1978 TOTAL 1070810 MEAN 2934 MAX 9960 MIN 1210
WTR YR 1979 TOTAL 831830 MEAN 2279 MAX 9910 MIN 1210

01064300 ELLIS RIVER NEAR JACKSON, NH

LOCATION.--Lat 44°13'12", long 71°15'00", Carroll County, Hydrologic Unit 01060002, in White Mountain National Forest, on right bank 0.4 mi (0.6 km) upstream from small left-bank tributary, 1.3 mi (2.1 km) upstream from bridge on State Highway 16, and 6 mi (10 km) northwest of Jackson.

DRAINAGE AREA.--10.9 mi² (28.2 km²).

PERIOD OF RECORD.--December 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,500 ft (457 m), from topographic map. Prior to Oct. 14, 1969, at site 0.3 mi (0.5 km) downstream at different datum.

REMARKS.--Records good except those for winter period, which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--15 years (water years 1965-79), 34.0 ft³/s (0.963 m³/s), 42.36 in/yr (1,076 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,500 ft³/s (127 m³/s) Nov. 3, 1966, gage height, 10.34 ft (3.152 m), from recorder, affected by drawdown, 18.9 ft (5.76 m), from floodmarks, site and datum then in use, from rating curve extended above 390 ft³/s (11 m³/s) on basis of slope-area measurement at gage height 10.34 ft (3.152 m); minimum not determined, occurred during ice effect in February 1977. Minimum daily, 2.7 ft³/s (0.076 m³/s) Feb. 23, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft³/s (11 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 2	2345	805	22.8	4.10	1.250	May 25	1445	425	12.0	3.20	0.975
Mar. 6	1430	619	17.5	3.68	1.122	May 29	-	400	11	-	-
Mar. 25	-	450	13	-	-	Sept. 6	1830	464	13.1	3.30	1.006
Apr. 27	1115	a*1590	45	5.48	1.670	Sept. 14	2115	543	15.4	3.49	1.064

a From rating curve extended as explained above.

Minimum discharge not determined; minimum daily, 3.4 ft³/s (0.10 m³/s) Dec. 30, 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	9.1	5.0	8.7	5.3	5.8	95	80	100	49	9.4	11
2	11	8.4	4.9	191	5.2	5.6	56	66	64	42	9.4	10
3	6.1	7.6	5.8	361	5.2	5.4	42	55	50	54	16	9.8
4	6.9	7.6	6.2	240	5.2	6.0	36	147	40	30	11	9.3
5	27	7.3	5.0	100	5.2	89	32	71	35	24	9.5	8.6
6	21	7.3	4.7	50	5.2	409	28	51	38	21	8.3	109
7	15	7.3	5.2	27	5.1	266	25	52	36	18	8.0	76
8	10	7.9	6.0	20	5.1	62	26	52	34	16	9.1	33
9	8.0	7.1	7.0	15	5.0	38	24	119	31	15	9.2	26
10	7.6	7.0	9.0	12	4.9	30	22	134	29	14	14	22
11	7.3	6.7	13	11	4.9	26	19	70	27	14	17	20
12	7.3	6.3	11	9.6	4.9	22	20	61	25	13	16	17
13	7.0	5.7	7.0	9.0	4.9	32	24	67	23	12	34	15
14	29	6.0	6.4	8.6	4.9	22	25	59	23	12	22	98
15	31	6.3	6.2	8.0	4.9	26	23	47	22	12	24	91
16	15	5.9	6.8	7.8	4.8	31	21	42	19	14	25	39
17	12	5.5	4.4	7.4	4.8	16	21	37	19	13	17	29
18	9.8	55	8.0	7.2	4.8	14	21	32	19	13	15	25
19	10	22	18	7.0	4.8	13	23	31	17	12	17	24
20	12	12	12	8.4	4.8	12	26	30	16	11	17	20
21	11	10	9.0	9.5	4.8	20	34	35	16	11	14	17
22	11	9.0	7.0	12	4.8	30	40	46	15	10	13	17
23	9.8	8.0	5.2	9.5	4.8	70	71	33	15	10	12	16
24	9.0	7.4	4.2	8.4	7.0	150	81	50	15	10	11	14
25	8.0	6.8	4.1	7.6	15	250	110	225	14	15	11	14
26	9.5	6.2	3.9	6.6	9.0	150	212	188	13	14	11	14
27	20	5.8	3.8	6.0	6.5	70	847	86	13	14	12	14
28	15	5.6	3.7	5.7	6.0	44	475	71	13	12	14	13
29	12	5.4	3.5	5.6	---	32	172	220	13	11	12	13
30	9.7	6.4	3.4	5.5	---	36	98	170	13	9.9	13	13
31	9.4	---	3.4	5.4	---	111	---	160	---	9.4	12	---
TOTAL	384.1	278.6	202.8	1190.5	157.8	2093.8	2749	2587	807	535.3	442.9	837.7
MEAN	12.4	9.29	6.54	38.4	5.64	67.5	91.6	83.5	26.9	17.3	14.3	27.9
MAX	31	55	18	361	15	409	847	225	100	54	34	109
MIN	6.1	5.4	3.4	5.4	4.8	5.4	19	30	13	9.4	8.0	8.6
CFSM	1.14	.85	.60	3.52	.52	6.19	8.40	7.66	2.47	1.59	1.31	2.56
IN.	1.31	.95	.69	4.06	.54	7.15	9.38	8.83	2.75	1.83	1.51	2.86

CAL YR 1978 TOTAL 10653.1 MEAN 29.2 MAX 492 MIN 3.4 CFSM 2.68 IN 36.35
WTR YR 1979 TOTAL 12266.5 MEAN 33.6 MAX 847 MIN 3.4 CFSM 3.08 IN 41.86

01064400 LUCY BROOK NEAR NORTH CONWAY, NH

LOCATION.--Lat 44°04'10", long 71°10'30", Carroll County, Hydrologic Unit 01060002, on left bank 1.6 mi (2.6 km) upstream from mouth and 2.5 mi (4.0 km) northwest of North Conway.

DRAINAGE AREA.--4.68 mi^2 (12.12 km^2).

PERIOD OF RECORD.--June 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 710 ft (216 m), from topographic map.

REMARKS.--Records good except those for winter period, and those for period of no gage-height record Dec. 20 to Mar. 8, which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--15 years, 11.1 ft^3/s (0.314 m^3/s), 32.21 in/yr (818 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,320 ft^3/s (37.4 m^3/s) Apr. 27, 1979, recorded gage height, 8.49 ft (2.588 m), affected by drawdown, river stage unknown, from rating curve extended above 140 ft^3/s (4.0 m^3/s) on basis of slope-area measurement at gage height, 8.14 ft (2.481 m) recorded, 9.20 ft^3/s (2.804 m) from floodmarks; minimum discharge, 0.32 ft^3/s (0.009 m^3/s) Sept. 2, 3, 29, 30, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 190 ft^3/s (5.4 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 3	-	300	8.5	-	-	Apr. 27	0945	a*1320	37.4	8.49	2.588
Mar. 6	-	350	9.9	-	-	May 25	1545	224	6.34	6.65	2.027
Mar. 25	1645	293	8.30	6.88	2.097						

a From rating curve extended as explained above.

Minimum discharge, 0.44 ft^3/s (0.012 m^3/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.61	1.5	1.6	10	2.5	2.7	31	41	33	6.4	1.7	1.9
2	.92	1.3	1.6	50	2.4	2.6	32	30	23	5.9	1.8	1.9
3	.80	1.3	1.9	160	2.4	2.5	28	24	17	4.4	5.3	1.9
4	.92	1.4	2.0	100	2.4	3.0	25	36	13	3.9	2.9	1.9
5	2.0	1.3	1.6	45	2.3	30	25	24	11	3.7	2.7	1.9
6	2.4	1.3	1.5	20	2.3	200	22	18	13	3.2	2.2	39
7	1.5	1.3	1.6	12	2.3	100	19	15	8.8	2.9	1.9	30
8	1.2	1.5	1.8	9.0	2.3	47	17	12	8.0	2.6	1.9	8.8
9	1.0	1.4	2.2	7.0	2.3	38	16	12	7.4	2.6	1.9	5.9
10	.92	1.3	2.8	6.0	2.3	30	16	12	6.6	2.3	2.6	5.1
11	.80	1.3	4.3	5.0	2.3	27	15	9.8	6.4	2.3	3.0	4.2
12	.80	1.3	3.5	4.5	2.2	23	15	8.5	5.7	2.3	3.0	3.9
13	.80	1.2	2.2	4.2	2.2	32	16	8.5	5.1	2.2	14	3.7
14	3.8	1.2	2.0	4.0	2.2	20	18	8.5	5.1	1.9	6.9	18
15	5.2	1.3	1.9	3.7	2.2	27	17	7.4	4.4	1.8	5.1	45
16	2.6	1.2	2.2	3.6	2.2	35	18	6.9	3.9	1.8	4.2	12
17	2.0	1.2	2.0	3.5	2.2	20	18	5.9	3.9	2.1	3.7	7.7
18	1.6	16	2.2	3.4	2.2	15	18	5.7	3.9	2.6	3.4	6.4
19	1.5	7.5	5.9	3.3	2.2	13	20	5.7	3.5	2.4	3.4	5.5
20	2.2	4.3	3.5	3.8	2.2	12	22	5.3	2.9	1.9	3.4	4.6
21	2.1	3.3	2.8	4.5	2.2	20	27	5.3	3.5	1.8	3.2	4.6
22	2.0	2.6	2.2	6.0	2.2	28	30	5.3	3.7	1.8	2.9	4.6
23	1.9	2.5	1.9	4.5	2.3	49	43	5.1	3.7	1.8	2.7	4.6
24	1.7	2.4	1.5	4.0	4.0	62	51	11	3.7	1.7	2.4	4.1
25	1.5	2.2	1.4	3.5	7.2	170	55	122	3.5	1.7	2.4	4.1
26	1.8	2.1	1.3	3.0	3.5	97	61	83	3.0	2.9	2.3	3.5
27	3.5	2.0	1.2	2.8	3.0	56	366	43	3.0	3.2	2.2	3.5
28	2.8	1.9	1.2	2.6	2.8	39	180	27	2.9	2.3	2.2	3.2
29	2.3	1.8	1.2	2.6	---	32	83	88	2.7	1.9	2.2	3.2
30	1.9	2.0	1.1	2.6	---	27	58	69	2.7	1.8	2.2	3.2
31	1.7	---	1.1	2.5	---	27	---	67	---	1.7	2.2	---
TOTAL	56.77	72.9	65.2	496.6	72.8	1286.8	1362	821.9	218.0	81.8	101.9	247.9
MEAN	1.83	2.43	2.10	16.0	2.60	41.5	45.4	26.5	7.27	2.64	3.29	8.26
MAX	5.2	16	5.9	160	7.2	200	366	122	33	6.4	14	45
MIN	.61	1.2	1.1	2.5	2.2	2.5	15	5.1	2.7	1.7	1.7	1.9
CFSM	.39	.52	.45	3.42	.56	8.87	9.70	5.66	1.55	.56	.70	1.77
IN.	.45	.58	.52	3.95	.58	10.23	10.82	6.53	1.73	.65	.81	1.97

CAL YR 1978 TOTAL 2579.83 MEAN 7.07 MAX 150 MIN .52 CFSM 1.51 IN 20.50
WTR YR 1979 TOTAL 4884.57 MEAN 13.4 MAX 366 MIN .61 CFSM 2.86 IN 38.82

01064500 SACO RIVER NEAR CONWAY, NH

LOCATION.--Lat 43°59'27", long 71°05'29", Carroll County, Hydrologic Unit 01060002, on left bank at Odell Falls 1.8 mi (2.9 km) downstream from Swift River and Conway.

DRAINAGE AREA.--386 mi² (1,000 km²).

PERIOD OF RECORD.--August 1903 to December 1909, January 1910 to June 1912 (gage heights only), February 1929 to current year. Monthly discharge only for some periods, published in WSP 1301. Prior to 1912, published as "at Center Conway."

REVISED RECORDS.--WSP 756: Drainage area. WSP 1301: 1908-9.

GAGE.--Water-stage recorder. Datum of gage is 418.19 ft (127.464 m) National Geodetic Vertical Datum of 1929. Aug. 26, 1903, to June 30, 1912, nonrecording gage at site 0.8 mi (1.3 km) downstream at different datum.

REMARKS.--Records good except those for winter period, and period of no gage-height record Aug. 3 to Sept. 20, which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--56 years (water years 1904-9, 1930-79), 933 ft³/s (26.42 m³/s), 32.82 in/yr (834 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,900 ft³/s (1,240 m³/s) Mar. 27, 1953, gage height, 17.20 ft (5.243 m), from rating curve extended above 23,000 ft³/s (650 m³/s) on basis of slope-area measurement of peak flow; maximum gage height, 19.03 ft (5.800 m) Mar. 7, 1979, ice jam; minimum, 40 ft³/s (1.13 m³/s) Mar. 16, 1932, gage height, 1.61 ft (0.491 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 8,700 ft³/s (250 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 3	0300	10300	292	8.52	2.597	Apr. 27	1400	*27600	782	13.25	4.039
Mar. 7	--	19000	538	a*19.03	5.800	May 25	2300	9920	281	8.39	2.557
Mar. 25	2300	14600	413	9.82	2.993						

a Ice jam

Minimum discharge, 76 ft³/s (2.15 m³/s) Dec. 3, gage height, 1.76 ft (0.536 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	C	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	228	160	145	320	330	2650	4050	3480	618	214	200
2	144	192	150	1310	310	310	2550	3090	2510	1230	228	180
3	160	174	140	6340	300	300	2230	2940	2020	1080	350	190
4	137	167	145	1850	290	300	2040	4240	1680	543	270	180
5	261	162	150	1070	280	580	2020	2800	1460	440	230	170
6	342	159	155	770	275	2650	1770	2190	1840	396	205	300
7	406	156	170	690	270	12000	1550	1900	1410	359	180	990
8	261	165	180	645	265	5210	1380	1650	1180	330	200	560
9	202	168	190	735	255	3130	1330	1900	1080	266	190	420
10	176	162	200	600	250	2360	1290	2350	1110	316	230	370
11	163	157	190	495	245	1980	1190	2000	993	388	260	340
12	156	152	180	430	240	1650	1180	1750	965	391	235	320
13	161	149	175	405	235	1350	1320	1500	909	341	420	300
14	214	148	170	480	235	1430	1450	1350	800	234	380	320
15	627	148	160	585	230	2140	1360	1250	715	221	350	1100
16	408	147	155	579	225	1480	1300	1150	652	250	310	910
17	278	152	150	500	225	1340	1310	1050	603	295	280	750
18	231	569	150	470	230	1160	1270	949	560	340	250	600
19	211	764	150	450	250	1090	1370	884	522	400	270	500
20	211	424	160	420	290	1050	1460	854	481	380	290	410
21	207	315	175	410	325	1160	1740	856	452	350	255	373
22	196	244	175	490	345	1750	2020	994	428	290	235	390
23	188	193	170	560	366	2700	2430	858	416	250	215	374
24	180	170	165	470	425	3810	3350	938	398	205	200	335
25	173	155	160	430	500	9650	3700	5270	382	210	195	312
26	172	150	155	400	540	9310	4930	6780	359	235	190	297
27	187	144	155	385	410	4960	19800	4420	345	405	200	277
28	240	150	150	370	360	3260	13400	2890	333	391	250	260
29	219	165	145	355	---	2590	7260	5200	338	293	220	278
30	198	170	145	345	---	2170	5190	4090	324	251	250	281
31	213	---	140	330	---	2300	---	6090	---	225	230	---
TOTAL	7041	6399	5015	23514	8491	85500	95840	78233	28745	11923	7802	12295
MEAN	227	213	162	759	303	2758	3195	2524	958	385	252	410
MAX	627	764	200	6340	540	12000	19800	6780	3480	1230	420	1100
MIN	119	144	140	145	225	300	1180	854	324	205	180	170
CFSM	.59	.55	.42	1.97	.79	7.15	8.28	6.54	2.48	1.00	.65	1.06
IN.	.68	.62	.48	2.27	.82	8.24	9.24	7.54	2.77	1.15	.75	1.18

CAL YR 1978 TOTAL 325354 MEAN 891 MAX 1,800 MIN 104 CFSM 2.31 IN 31.36
WTR YR 1979 TOTAL 370798 MEAN 1016 MAX 19800 MIN 119 CFSM 2.63 IN 35.73

01065000 OSSIPEE RIVER AT EFFINGHAM FALLS, NH

LOCATION.--Lat 43°47'44", long 71°03'36", Carroll County, Hydrologic Unit 01060002, on left bank 0.3 mi (0.5 km) upstream from bridge on State Highway 153 at Effingham Falls, 0.3 mi (0.5 km) downstream from outlet of Ossipee Lake, and 4 mi (6 km) northwest of Effingham.

DRAINAGE AREA.--330 mi² (855 km²).

PERIOD OF RECORD.--Discharge: September 1942 to current year.
Water-quality records: Water year 1955.

GAGE.--Water-stage recorder. Altitude of gage is 390 ft (119 m), from topographic map.

REMARKS.--Records excellent. Flow regulated by Ossipee and Silver Lakes and Pine River Pond, combined capacity, 1,430,000,000 ft³ (40,500,000 m³). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--37 years, 695 ft³/s (19.68 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,700 ft³/s (331 m³/s) Mar. 28, 1953, gage height, 11.64 ft (3.548 m); minimum, about 5 ft³/s (0.14 m³/s) during part of several days Nov. 4-20, 1968 (caused by unusual regulation); minimum daily, 11 ft³/s (0.31 m³/s) Oct. 10, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,660 ft³/s (104 m³/s) Mar. 27, gage height, 7.88 ft (2.402 m); minimum, 127 ft³/s (3.60 m³/s) Dec. 22-29; minimum daily, 127 ft³/s (3.60 m³/s) Dec. 23-28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134	240	218	231	464	368	2420	3080	2600	206	200	314
2	134	240	218	233	461	372	2330	2740	2400	204	343	318
3	134	231	218	250	458	379	2310	2440	2120	201	649	314
4	134	223	218	272	455	374	2270	2250	1850	202	694	311
5	134	223	218	292	451	375	2260	2180	1650	203	310	310
6	136	223	218	303	447	394	2190	1990	1280	242	307	520
7	136	223	216	309	443	822	2060	1670	1040	314	305	583
8	136	223	281	577	439	1990	1860	1480	776	314	303	452
9	136	223	325	779	435	2570	1760	1290	510	312	303	450
10	136	223	326	775	430	2640	1690	1160	514	311	256	447
11	136	223	321	767	425	2580	1600	994	516	311	196	444
12	136	223	323	610	419	2500	1510	676	518	308	196	362
13	136	223	320	515	413	2280	1470	856	516	245	267	304
14	139	223	320	515	408	2090	1470	649	427	200	312	303
15	140	222	317	513	404	1940	1490	475	291	199	314	304
16	140	221	315	508	399	1790	1490	347	293	199	311	307
17	179	221	314	505	392	1670	1470	255	295	200	311	307
18	247	222	315	502	390	1530	1450	356	297	201	311	380
19	247	223	310	497	385	1400	1430	503	299	202	311	427
20	247	223	308	493	379	1310	1110	504	303	271	308	423
21	247	223	307	493	372	1260	978	503	303	315	308	420
22	247	223	232	489	360	1320	1100	508	365	310	244	418
23	247	223	127	484	350	1510	1390	560	411	265	202	416
24	245	223	127	481	348	1820	1580	886	409	198	202	342
25	245	223	127	492	345	2370	1770	1800	406	198	203	288
26	245	222	127	480	351	3160	1850	2630	403	203	202	286
27	245	221	127	476	360	3630	1910	2940	399	203	202	284
28	243	221	127	473	365	3490	2710	2880	399	199	202	283
29	243	219	164	469	---	3170	3370	2740	281	200	202	283
30	243	218	229	466	---	2830	3350	2700	202	200	262	281
31	243	---	229	466	---	2570	---	2690	---	201	314	---
TOTAL	5790	6712	7542	14715	11348	56504	55668	46952	22073	7337	9050	10881
MEAN	187	224	243	475	405	1823	1856	1515	736	237	292	363
MAX	247	240	326	779	464	3630	3370	3080	2600	315	694	583
MIN	134	218	127	231	345	368	978	255	202	198	196	281

CAL YR 1978 TOTAL 241234 MEAN 661 MAX 2780 MIN 127
WTR YR 1979 TOTAL 254572 MEAN 697 MAX 3630 MIN 127

01072100 SALMON FALLS RIVER AT MILTON, NH

LOCATION.--Lat 43°24'50", long 70°59'15", Strafford County, Hydrologic Unit 01060003, on right bank just downstream from Milton Pond at Milton.

DRAINAGE AREA.--108 mi^2 (280 km^2).

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 405 ft (123 m), from topographic map.

REMARKS.--Records good. Flow regulated by Great East and Lovell Lakes and Horn, Wilson, and Milton (also controls Northeast and Town House) Ponds, combined usable capacity, 1,280,000,000 ft^3 (36,250,000 m^3). See table below for figures of monthend contents.

AVERAGE DISCHARGE.--11 years, 207 ft^3/s (5.862 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,500 ft^3/s (99.1 m^3/s) Mar. 15, 1977, gage height, 6.50 ft (1.981 m); minimum daily, 19 ft^3/s (0.54 m^3/s) Aug. 30, Sept. 13, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,730 ft^3/s (49.0 m^3/s) Mar. 26, gage height, 5.48 ft (1.670 m); minimum daily, 31 ft^3/s (0.88 m^3/s) Feb. 21-22.

CORRECTIONS.--Monthend contents, in millions of cubic feet, in Great East and Lovell Lakes, and Horn, Wilson, Milton, Northeast and Town House Ponds, which were omitted in report for 1978, are given below:

Month	Millions of cubic feet	Month	Millions of cubic feet	Month	Millions of cubic feet
October 1977	855.8	February 1978	710.0	June 1978	1230.6
November 1977	789.6	March 1978	810.1	July 1978	1135.2
December 1977	797.3	April 1978	1149.2	August 1978	1068.9
January 1978	888.8	May 1978	1206.7	September 1978	945.8

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	138	43	42	150	95	692	493	235	42	37	35
2	35	138	43	43	150	115	678	412	235	42	37	35
3	35	138	41	84	150	140	725	264	240	42	37	35
4	35	138	41	146	150	170	813	181	240	42	37	35
5	35	132	41	167	150	200	814	246	236	42	37	35
6	40	107	40	167	150	250	782	261	228	42	37	35
7	45	116	40	167	150	383	714	261	201	42	37	35
8	47	119	40	181	150	727	632	254	176	42	36	35
9	50	119	40	214	150	1010	496	229	169	42	36	35
10	62	99	42	235	147	1030	459	223	167	42	36	35
11	105	95	41	311	141	944	414	144	141	42	36	35
12	101	85	39	341	136	1020	374	105	116	42	36	35
13	97	78	39	300	135	962	315	115	87	42	36	35
14	93	210	39	270	135	738	268	117	59	42	36	35
15	93	180	39	238	134	650	313	130	59	42	36	35
16	93	130	39	213	133	600	378	140	59	42	36	35
17	93	91	39	193	131	560	389	145	59	42	36	35
18	93	83	39	180	130	520	398	145	59	42	36	35
19	95	77	39	168	130	500	410	145	52	42	36	35
20	109	71	39	157	77	495	413	140	48	42	36	35
21	109	66	39	153	31	520	407	130	48	41	36	35
22	109	60	39	153	31	650	394	115	48	41	36	36
23	111	57	39	151	35	793	382	105	48	40	36	37
24	153	56	39	150	45	930	345	140	48	37	36	37
25	150	55	39	150	50	1280	326	800	48	37	36	39
26	134	50	40	150	58	1690	321	1100	44	37	36	41
27	131	48	44	150	67	1630	297	1050	42	37	36	43
28	130	46	44	150	80	1250	410	750	42	37	36	43
29	128	44	44	150	---	965	475	350	42	37	36	43
30	112	43	43	150	---	793	501	250	42	37	35	49
31	132	---	42	150	---	704	---	235	---	37	35	---
TOTAL	2790	2869	1255	5474	3176	22314	14335	9175	3318	1258	1121	1103
MEAN	90.0	95.6	40.5	177	113	720	478	296	111	40.6	36.2	36.8
MAX	153	210	44	341	150	1690	814	1100	240	42	37	49
MIN	35	43	39	42	31	95	268	105	42	37	35	35
(†)	765.1	605.6	648.8	718.0	746.3	1047.6	1183.7	1254.0	1196.2	1125.6	1075.7	1140.6

CAL YR 1978 TOTAL 65435 MEAN 179 MAX 1770 MIN 35
WTR YR 1979 TOTAL 68188 MEAN 187 MAX 1690 MIN 31

† Monthend contents, in millions of cubic feet, in Great East and Lovell Lakes, and Horn, Wilson, Milton, Northeast and Town House Ponds; records furnished by New Hampshire Water Resources Board.

PISCATAQUA RIVER BASIN

01073000 OYSTER RIVER NEAR DURHAM, NH

LOCATION.--Lat 43°08'55", long 70°57'56", Strafford County, Hydrologic Unit 01060003, on left bank 200 ft (60 m) upstream from highway bridge, 2.5 mi (4.0 km) west of Durham, and 7 mi (11 km) upstream from mouth.

DRAINAGE AREA.--12.1 mi² (31.3 km²).

PERIOD OF RECORD.--October 1934 to current year. October and November 1934 monthly discharge only, published in WSP 1301.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 70 ft (21 m), from topographic map. Prior to Oct. 1, 1964, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good except those for winter period, which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--45 years, 19.4 ft³/s (0.549 m³/s), 21.77 in/yr (553 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 862 ft³/s (24.4 m³/s) Sept. 11, 1954, gage height, 6.47 ft (1.972 m), present datum; maximum gage height, 8.45 ft (2.576 m), present datum, Mar. 19, 1936; minimum discharge, 0.23 ft³/s (0.007 m³/s) Aug. 18, 19, 25, 26, 27, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 170 ft³/s (4.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 7	1200	*348	9.86	4.17	1.271	May 26	0030	172	4.87	3.20	.975
Mar. 11	1600	245	6.94	3.64	1.109						

Minimum discharge not determined; minimum daily, 0.50 ft³/s (0.014) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	1.0	3.0	12	50	40	41	34	31	4.0	1.1	4.2
2	.60	1.2	2.4	40	40	39	47	28	25	4.2	1.3	3.1
3	.70	1.1	1.9	73	35	41	81	24	22	3.1	1.3	4.4
4	.80	1.1	2.1	30	30	41	61	38	19	2.4	2.6	3.6
5	1.0	1.0	2.8	19	27	57	60	31	17	2.4	2.0	2.8
6	2.0	1.0	2.7	14	24	140	53	25	17	3.1	1.5	2.8
7	1.7	1.2	2.5	12	21	318	43	21	13	1.6	1.1	3.4
8	1.3	1.3	3.1	62	19	260	34	19	12	.96	.96	2.4
9	1.0	1.4	11	50	17	173	32	18	12	1.2	.88	2.4
10	.85	1.5	8.7	32	15	140	50	16	10	1.2	1.1	1.5
11	.74	1.4	5.7	21	14	215	53	14	8.1	1.2	1.6	1.5
12	.75	1.3	4.1	15	13	148	47	12	9.0	1.3	2.8	1.4
13	.83	1.2	3.5	13	12	89	41	15	7.6	1.3	7.3	1.3
14	1.0	1.1	3.1	14	11	91	40	17	6.2	1.2	4.2	1.2
15	1.7	1.1	2.8	14	11	109	47	25	5.5	1.2	2.6	1.9
16	1.6	1.0	2.4	11	10	70	41	23	4.6	1.3	1.9	1.6
17	1.4	.90	2.9	9.7	10	53	37	19	4.2	1.7	1.6	.88
18	1.0	2.1	3.4	9.0	9.6	45	32	16	4.2	2.6	1.4	1.3
19	.90	2.2	2.3	8.4	9.3	47	28	15	8.4	2.6	2.0	1.6
20	1.1	1.7	1.9	7.4	9.2	56	27	15	5.2	2.0	2.3	2.9
21	1.3	1.5	2.2	17	9.3	76	24	15	4.2	1.7	1.7	2.1
22	1.1	1.5	2.2	38	9.6	84	22	13	3.4	1.4	1.6	11
23	.89	1.3	2.0	36	11	82	21	11	3.3	1.2	1.4	5.7
24	1.0	2.7	1.9	35	20	79	19	42	2.9	1.1	1.2	3.4
25	1.0	4.2	5.1	44	84	93	18	119	2.6	1.2	1.2	3.4
26	1.2	2.5	7.0	82	57	89	17	138	2.3	1.3	.96	4.0
27	2.4	1.8	5.1	97	44	65	46	85	2.1	3.1	2.4	4.2
28	2.1	1.7	4.6	93	42	48	78	57	2.3	2.4	6.2	3.8
29	1.4	1.7	4.3	87	---	40	59	51	2.0	1.7	18	9.4
30	1.2	2.7	3.9	80	---	40	46	42	2.1	1.5	20	12
31	1.2	---	4.2	61	---	44	---	41	---	1.3	7.0	---
TOTAL	36.26	47.40	114.8	1136.5	664.0	2912	1245	1039	268.2	58.46	103.20	105.18
MEAN	1.17	1.58	3.70	36.7	23.7	93.9	41.5	33.5	8.94	1.89	3.33	3.51
MAX	2.4	4.2	11	97	84	318	81	138	31	4.2	20	12
MIN	.50	.90	1.9	7.4	9.2	39	17	11	2.0	.96	.88	.88
CFSM	.10	.13	.31	3.03	1.96	7.76	3.43	2.77	.74	.16	.28	.29
IN.	.11	.15	.35	3.49	2.04	8.95	3.83	3.19	.82	.18	.32	.32

CAL YR 1978 TOTAL 6387.11 MEAN 17.5 MAX 235 MIN .46 CFSM 1.45 IN 19.63
WTR YR 1979 TOTAL 7730.00 MEAN 21.2 MAX 318 MIN .50 CFSM 1.75 IN 23.76

01073500 LAMPREY RIVER NEAR NEWMARKET, NH

LOCATION.--Lat 43°06'09", long 70°57'11", Rockingham County, Hydrologic Unit 01060003, on right bank 200 ft (60 m) upstream from Packers Falls, 2 mi (3 km) northwest of Newmarket, and 4.6 mi (7.4 km) upstream from mouth.

DRAINAGE AREA.--183 mi^2 (474 km^2).

PERIOD OF RECORD.--Discharge: July 1934 to current year.
Water-quality records: Water year 1954.

REVISED RECORDS.--WSP 1231: 1936-37.

GAGE.--Water-stage recorder. Altitude of gage is 40 ft (12 m), from topographic map.

REMARKS.--Records excellent except those for winter period, which are fair. Some regulation by Pawtuckaway and Mendums Ponds, combined capacity, about 600,000,000 ft^3 (17,000,000 m^3). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--45 years, 280 ft^3/s (7.930 m^3/s), 20.78 in/yr (528 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,490 ft^3/s (155 m^3/s) Mar. 20, 1936, gage height, 14.88 ft (4.535 m), from rating curve extended above 3,100 ft^3/s (88 m^3/s) on basis of computation of flow over dam at gage height 14.69 ft (4.478 m); minimum daily, 1 ft^3/s (0.03 m^3/s) Oct. 21, 1935.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,970 ft^3/s (84.1 m^3/s) Mar. 9, gage height, 9.11 ft (2.777 m); minimum daily, 4.1 ft^3/s (0.12 m^3/s) Oct. 1-3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	85	55	62	768	552	587	669	592	40	34	117
2	4.1	79	52	192	656	532	585	548	518	46	46	80
3	4.1	87	47	452	575	523	758	456	440	44	45	64
4	4.2	81	48	400	485	515	774	470	367	42	42	57
5	8.7	73	50	350	425	614	777	468	315	39	37	45
6	22	67	52	300	360	931	718	431	291	35	34	41
7	36	63	50	260	325	1660	650	370	269	32	28	48
8	24	59	52	432	300	2510	579	320	243	31	26	47
9	16	78	83	605	265	2890	535	288	215	30	23	39
10	13	114	116	520	240	2410	576	264	193	28	24	35
11	19	97	105	470	225	2210	633	236	172	28	27	31
12	28	80	105	400	210	2090	635	210	163	27	33	29
13	78	66	90	350	200	1900	609	207	148	26	61	27
14	66	57	82	290	190	1700	573	211	127	25	65	27
15	84	49	72	260	170	1510	554	316	112	23	57	26
16	73	44	64	230	160	1270	534	311	97	23	48	24
17	66	40	63	210	150	1040	499	272	85	27	39	23
18	60	45	65	190	145	761	456	241	79	28	34	22
19	57	46	53	175	140	662	416	213	115	27	34	21
20	76	40	53	165	135	669	390	200	108	26	34	18
21	72	41	56	215	145	736	359	191	87	23	32	18
22	66	44	58	350	160	893	335	183	74	21	30	50
23	59	43	53	450	181	1040	316	169	68	20	27	75
24	53	68	50	481	266	1070	291	249	60	19	27	62
25	55	79	64	627	581	1130	252	722	65	18	29	58
26	77	73	86	896	602	1240	224	1350	56	20	28	50
27	143	60	90	1040	552	1190	310	1540	47	38	31	45
28	129	61	78	1100	569	967	715	1300	43	66	37	41
29	109	54	68	1090	---	727	886	934	40	52	91	51
30	103	54	60	1030	---	616	854	745	38	47	300	67
31	96	---	53	892	---	595	---	679	---	39	177	---
TOTAL	1705.2	1927	2073	14484	9180	37153	16380	14763	5227	990	1580	1338
MEAN	55.0	64.2	66.9	467	328	1198	546	476	174	31.9	51.0	44.6
MAX	143	114	116	1100	768	2890	886	1540	592	66	300	117
MIN	4.1	40	47	62	135	515	224	169	38	18	23	18
CFSM	.30	.35	.37	2.55	1.79	6.55	2.98	2.60	.95	.17	.28	.24
IN.	.35	.39	.42	2.94	1.87	7.55	3.33	3.00	1.06	.20	.32	.27

CAL YR 1978 TOTAL 88666.0 MEAN 243 MAX 1590 MIN 4.1 CFSM 1.33 IN 18.02
WTR YR 1979 TOTAL 106800.2 MEAN 293 MAX 2890 MIN 4.1 CFSM 1.60 IN 21.71

01073600 DUDLEY BROOK NEAR EXETER, NH

LOCATION.--Lat 42°59'37", long 71°01'24", Rockingham County, Hydrologic Unit 01060003, on right bank 2.4 mi (3.9 km) upstream from mouth and 3.5 mi (5.6 km) west of Exeter.

DRAINAGE AREA.--4.97 mi^2 (12.87 km^2).

PERIOD OF RECORD.--May 1962 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 90 ft (27 m), from topographic map.

REMARKS.--Records fair except those for winter period and those below 0.5 ft^3/s, (0.01 m^3/s), which are poor.

AVERAGE DISCHARGE.--17 years, 7.17 ft^3/s (0.203 m^3/s), 19.59 in/yr (498 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 358 ft^3/s (10.14 m^3/s) Apr. 2, 1973, gage height, 7.74 ft (2.36 m), from rating curve extended above 210 ft^3/s (5.9 m^3/s); no flow at times some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft^3/s (2.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 26	1030	139	3.94	6.10	1.859	May 25	2345	101	2.86	5.72	1.743
Mar. 6	2100	*169	4.79	6.36	1.939						

Minimum discharge, .05 ft^3/s (0.001 m^3/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.70	1.1	3.5	13	17	11	12	9.0	.26	.55	7.8
2	.06	.45	1.2	10	11	16	11	8.4	6.0	.39	4.9	3.4
3	.06	.35	1.2	32	9.4	21	34	6.6	4.4	.42	6.8	2.1
4	.06	.48	.98	17	8.4	32	20	9.2	3.5	.34	2.3	2.2
5	.19	.43	1.2	6.0	7.6	64	21	11	3.1	.24	1.1	1.6
6	1.4	.39	1.5	3.5	7.0	106	22	7.3	3.9	.26	.66	1.1
7	1.9	.35	1.5	2.5	6.6	124	15	5.5	3.4	.18	.39	1.5
8	1.4	.31	1.7	30	6.0	69	10	4.6	2.4	.16	.34	1.7
9	.62	.37	4.6	20	5.7	41	8.8	3.6	2.2	.13	.28	1.1
10	.32	.41	6.9	14	5.3	38	25	3.4	2.0	.10	.34	.78
11	.22	.37	9.0	6.5	4.9	78	31	2.8	1.5	.11	.74	.55
12	.18	.38	4.9	4.0	4.5	38	16	2.6	1.8	.12	1.3	.45
13	.18	.29	2.4	2.5	4.3	16	11	2.8	1.9	.12	6.4	.37
14	.32	.27	1.7	1.9	4.0	19	9.0	4.1	1.3	.09	11	.34
15	1.5	.22	1.4	1.6	3.8	32	8.8	9.9	.98	.08	6.6	.34
16	1.5	.19	1.1	1.7	3.6	14	9.0	14	.83	.09	3.5	.37
17	.93	.18	.98	1.8	3.4	8.6	8.6	7.8	.78	.14	1.5	.37
18	.66	.70	1.1	1.9	3.2	7.3	7.8	4.9	.74	.16	.88	.34
19	.62	.78	1.2	2.0	3.1	7.6	6.6	3.9	2.0	.24	.83	.32
20	.66	.58	1.2	2.1	3.0	10	6.4	3.6	1.5	.24	.98	.30
21	.70	.48	.83	10	3.7	14	5.8	3.6	.88	.16	.88	.28
22	.88	.48	.93	13	4.6	17	5.4	3.6	.55	.13	.66	3.2
23	.93	.42	.98	25	10	15	5.0	3.0	.45	.10	.48	7.3
24	.88	1.2	.98	21	29	14	4.9	9.9	.37	.07	.45	5.5
25	.78	2.3	1.7	26	31	18	4.4	59	.34	.06	.34	2.7
26	.66	1.5	3.6	35	21	24	4.3	80	.30	.35	.32	1.5
27	1.8	.74	4.6	30	19	14	16	39	.24	2.0	.32	1.1
28	2.1	.48	6.0	24	18	9.5	55	17	.24	1.5	.98	.78
29	1.5	.48	5.7	20	---	7.6	26	12	.19	1.2	3.0	2.6
30	1.2	.78	3.1	16	---	7.6	17	9.5	.19	.90	36	5.7
31	.88	---	2.3	14	---	10	---	11	---	.74	21	---
TOTAL	25.14	17.06	77.58	398.5	254.1	909.2	435.8	375.6	56.98	11.08	115.82	57.69
MEAN	.81	.57	2.50	12.9	9.08	29.3	14.5	12.1	1.90	.36	3.74	1.92
MAX	2.1	2.3	9.0	35	31	124	55	80	9.0	2.0	36	7.8
MIN	.05	.18	.83	1.6	3.0	7.3	4.3	2.6	.19	.06	.28	.28
CFSM	.16	.12	.50	2.60	1.83	5.90	2.92	2.44	.38	.07	.75	.39
IN.	.19	.13	.58	2.98	1.90	6.80	3.26	2.81	.43	.08	.87	.43

CAL YR 1978 TOTAL 2475.59 MEAN 6.78 MAX 129 MIN .03 CFSM 1.36 IN 18.53
WTR YR 1979 TOTAL 2734.55 MEAN 7.49 MAX 124 MIN .05 CFSM 1.51 IN 20.46

01075800 STEVENS BROOK NEAR WENTWORTH, NH

LOCATION.--Lat 43°50'12", long 71°53'07", Grafton County, Hydrologic Unit 01070001, on left bank 150 ft (46 m) upstream from highway bridge, 0.2 mi (0.3 km) upstream from mouth, and 2.5 mi (4.0 km) southeast of Wentworth.

DRAINAGE AREA.--2.94 mi² (7.61 km²).

PERIOD OF RECORD.--May 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 595 ft (181 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair, and those below 0.1 ft³/s (0.003 m³/s), which are poor. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--16 years, 4.75 ft³/s (0.135 m³/s), 21.94 in/yr (557 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,120 ft³/s (31.7 m³/s) June 30, 1973, gage height, 6.36 ft (1.939 m), from rating curve extended above 120 ft³/s (3.4 m³/s); minimum, 0.01 ft³/s (<0.001 m³/s) several days in 1963-65, 1971, 1975, 1977, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 90 ft³/s (2.5 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 5	1830	ice jam		*3.82	1.16	May 29	0400	113	3.20	3.10	.945
Mar. 25	0530	*131	3.71	3.22	.981						

Minimum discharge, 0.06 ft³/s (0.002 m³/s) Oct. 1, Aug. 8-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.31	.60	1.0	1.2	1.1	15	5.8	6.4	.32	.13	.18
2	.19	.28	.60	20	1.1	.94	11	4.4	4.2	.78	.32	.14
3	.23	.25	.59	25	1.1	.90	9.7	3.6	3.3	.72	.29	.14
4	.25	.25	.55	10	1.0	.90	9.4	11	2.5	.41	.14	.14
5	.47	.25	.65	5.0	1.0	10	9.4	6.9	2.3	.29	.12	.13
6	.88	.23	.79	2.7	.98	70	7.6	4.4	2.5	.35	.09	4.4
7	.94	.23	1.0	2.1	.96	50	5.8	3.3	1.8	.18	.08	6.6
8	.65	.36	1.9	2.0	.94	31	5.2	2.7	1.4	.16	.07	1.8
9	.44	.40	3.7	2.3	.92	22	4.8	2.5	1.2	.14	.06	.95
10	.40	.40	3.6	1.7	.90	17	4.8	1.9	1.1	.14	.29	.72
11	.37	.40	3.0	1.4	.86	20	4.2	1.8	.95	.16	.29	.53
12	.37	.39	2.4	1.3	.80	14	5.8	1.6	1.8	.14	.35	.41
13	.37	.28	2.1	1.2	.74	24	7.3	1.6	1.6	.12	1.0	.32
14	1.2	.28	1.8	1.1	.72	13	8.1	1.6	1.0	.16	1.0	.78
15	1.6	.28	1.6	1.3	.70	17	6.6	1.4	.78	.18	.57	7.1
16	.94	.28	1.4	1.2	.68	41	6.2	1.2	.62	.32	.38	2.0
17	.76	.26	1.3	1.1	.66	22	6.2	.95	.45	.32	.26	1.1
18	.65	2.4	1.2	1.0	.66	10	6.0	.89	.41	.57	.24	.78
19	.56	2.7	1.2	.94	.66	6.2	6.0	.78	.38	1.8	.26	.67
20	.70	2.6	1.1	.90	.64	6.9	5.8	.67	.32	.83	.29	.67
21	.65	1.9	1.1	.86	.64	11	6.9	.62	.29	.49	.38	.67
22	.60	1.3	1.0	.82	.64	23	8.6	.72	.26	.32	.35	1.2
23	.56	.91	.96	2.2	.64	37	14	.62	.19	.19	.24	1.1
24	.51	1.0	.92	2.0	.70	46	15	9.1	.24	.14	.21	.72
25	.47	1.1	.90	1.8	1.5	84	14	44	.19	.16	.21	.57
26	.44	.75	.88	1.6	1.4	36	15	17	.16	.18	.18	.45
27	.94	.60	.86	1.5	1.3	15	48	5.8	.14	.26	.26	.41
28	.82	.60	.84	1.5	1.2	9.1	33	4.1	.18	.18	.29	.38
29	.65	.60	.82	1.4	---	7.1	15	51	.38	.13	.19	.83
30	.40	.60	.80	1.4	---	6.4	8.3	16	.21	.14	.24	.95
31	.37	---	.80	1.3	---	11	---	10	---	.14	.24	---
TOTAL	18.47	22.19	40.96	99.62	25.24	663.54	322.7	217.95	37.25	10.42	9.02	36.84
MEAN	.60	.74	1.32	3.21	.90	21.4	10.8	7.03	1.24	.34	.29	1.23
MAX	1.6	2.7	3.7	25	1.5	84	48	51	6.4	1.8	1.0	7.1
MIN	.09	.23	.55	.82	.64	.90	4.2	.62	.14	.12	.06	.13
CFSM	.20	.25	.45	1.09	.31	7.28	3.67	2.39	.42	.12	.10	.42
IN.	.23	.28	.52	1.26	.32	8.39	4.08	2.76	.47	.13	.11	.47

CAL YR 1978 TOTAL 1711.68 MEAN 4.69 MAX 100 MIN .01 CFSM 1.60 IN 21.65
WTR YR 1979 TOTAL 1504.20 MEAN 4.12 MAX 84 MIN .06 CFSM 1.40 IN 19.03

01076500 PEMIGEWASSET RIVER AT PLYMOUTH, NH

LOCATION.--Lat 43°45'33", long 71°41'10", Grafton County, Hydrologic Unit 01070001, on right bank 150 ft (46 m) downstream from bridge at Plymouth and 0.3 mi (0.5 km) downstream from Baker River.
DRAINAGE AREA.--622 mi^2 (1,611 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1903 to current year. Records for April 1886 to September 1903, published in WSP 124, are unreliable and should not be used.
REVISED RECORDS.--WSP 471: 1912-14. WSP 726: Drainage area. WSP 1231: 1904-11, 1913-14, 1917-18, 1919(M), 1920-25, 1926-27(M), 1929-31(M). WSP 1721: 1959(M). See also PERIOD OF RECORD.
GAGE.--Water-stage recorder. Datum of gage is 457.07 ft (139.315 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 1, 1910, nonrecording gage at sites 150 ft (46 m) and 200 ft (60 m) upstream at present datum or datum 1.11 ft (0.338 m) lower. Jan. 1, 1910, to Sept. 30, 1926, nonrecording gage at site 200 ft (60 m) upstream at present datum.
REMARKS.--Records good except those for winter period, and period of no gage-height record Oct. 13 to Jan. 2, which are fair. Some diurnal fluctuation during period 1940-52 caused by powerplants upstream. Several observations of water temperature and specific conductance were made during the year.
AVERAGE DISCHARGE.--76 years, 1,360 ft^3/s (38.52 m^3/s), 29.69 in/yr (754 mm/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 65,400 ft^3/s (1,850 m^3/s) Mar. 19, 1936, gage height, 29.0 ft (8.84 m), from floodmarks, from rating curve extended above 43,000 ft^3/s (1,220 m^3/s) on basis of computations of flow over dam at gage heights 23.0 ft (7.01 m), 27.4 ft (8.35 m), and 29.0 ft (8.84 m); minimum, 39 ft^3/s (1.10 m^3/s) Oct. 1, 3, 4, 1948; minimum daily, 45 ft^3/s (1.27 m^3/s) Sept. 20, 1923.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 12,600 ft^3/s (357 m^3/s) and maximums (*):

Date	Time	Discharge (ft^3/s)	(m^3/s)	Gage height (ft)	(m)
Mar. 7	1230	18000	510	*18.53	5.648
Mar. 25	1700	21100	598	12.79	3.898
Apr. 28	0800	*22400	634	13.47	4.106

Minimum discharge, 121 ft^3/s (3.43 m^3/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	126	287	260	301	540	600	4360	4740	3070	378	170	281
2	168	270	370	820	520	560	4120	3620	2270	818	220	240
3	212	250	230	6500	500	540	3520	2950	1790	832	255	217
4	174	220	220	4400	490	520	3220	5510	1440	631	330	208
5	234	200	300	2100	470	700	3140	4450	1190	447	240	194
6	336	240	320	1200	460	1800	2670	3110	1660	378	230	320
7	418	220	280	1000	450	14500	2240	2530	1210	323	210	3120
8	307	280	323	730	430	12000	1890	2200	1010	294	210	978
9	239	220	791	1300	410	7200	1810	2320	945	274	200	663
10	208	290	752	1500	400	4500	1700	3150	901	261	190	520
11	192	220	346	920	390	4000	1500	2690	845	242	341	440
12	185	230	353	810	380	3500	1520	1960	832	236	330	385
13	180	210	429	660	370	2500	1770	1810	859	230	578	330
14	180	190	386	660	360	2200	2030	2000	752	230	605	330
15	506	220	323	760	350	2700	1880	1700	666	224	445	1830
16	245	200	260	820	340	2200	1880	1440	643	224	369	896
17	361	290	350	640	330	2000	1940	1210	534	248	330	642
18	294	631	250	550	320	1600	1950	1010	484	267	286	525
19	261	1020	220	560	300	1700	2070	887	438	403	310	451
20	267	643	260	540	290	1800	2130	778	403	386	525	440
21	267	394	300	450	285	2000	2450	740	361	267	391	396
22	261	330	250	420	280	2900	2870	960	330	230	320	440
23	240	290	290	680	330	5140	3010	791	323	210	276	467
24	210	323	250	730	400	7030	4120	1040	308	200	255	385
25	240	290	260	770	600	16600	4200	6110	294	190	250	341
26	270	230	260	780	900	13500	4970	7560	287	180	245	320
27	465	190	270	980	780	6920	14900	4150	280	305	240	301
28	655	250	250	770	700	4370	17800	2940	254	300	347	281
29	403	310	260	700	---	3470	10100	6360	438	245	358	330
30	323	290	240	650	---	2910	6340	5030	394	200	320	374
31	294	---	280	560	---	3680	---	4300	---	180	347	---
TOTAL	8721	9228	9933	34261	12375	135640	118100	90046	25211	9833	9723	16645
MEAN	281	308	320	1105	442	4375	3937	2905	840	317	314	555
MAX	655	1020	791	6500	900	16600	17800	7560	3070	832	605	3120
MIN	126	190	220	301	280	520	1500	740	254	180	170	194
CFSM	.45	.50	.51	1.78	.71	7.03	6.33	4.67	1.35	.51	.51	.89
IN.	.52	.55	.59	2.05	.74	8.11	7.06	5.39	1.51	.59	.58	1.00

CAL YR 1978 TOTAL 466765 MEAN 1279 MAX 10300 MIN 122 CFSM 2.06 IN 27.92
WTR YR 1979 TOTAL 479716 MEAN 1314 MAX 17800 MIN 126 CFSM 2.11 IN 28.69

01076500 PEMIGEWASSET RIVER AT PLYMOUTH, NH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1953, 1967-74, 1976 to April 1979 (discontinued)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO APRIL 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (JTU)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L)
OCT 17...	0910	205	55	7.4	5.0	30	1	--	12.6	98	--
APR 04...	0900	960	50	5.8	6.0	20	--	3.0	11.8	95	13

DATE	C.O.D. TOTAL IN BOTTOM MA-TERIAL (MG/KG)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, SUSP. TOTAL, RESIDUE AT 110 DEG. C (MG/L)
OCT 17...	5500	K16	K10	K5	11	0	9	.7	7.8	5.9	1
APR 04...	--	K2	K5	K1	7	0	6	18	6.1	4.7	6

DATE	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE IN BOTTOM MA-TERIAL (MG/KG)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)
OCT 17...	48	5250	.00	.00	.16	.16	.16	.01	0	1	<10
APR 04...	36	--	.17	.00	.09	.09	.26	.01	1	1	10

DATE	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS (UG/L)	OIL AND GREASE, TOTAL RECOV. GRAVI-METRIC (MG/L)
OCT 17...	<10	2	400	46	90	<.5	0	20	0	0
APR 04...	--	7	240	7	30	.5	0	30	1	0

DATE	CHLORO-PHYLL A PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)	CHLORO-PHYLL B PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)	PCB, TOTAL (UG/L)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)
OCT 17...	.000	--	.000	--	.0	.00	.00	.0	.00	.00
APR 04...	--	.000	--	.000	.0	.00	.00	.0	.00	.00

DATE	DDT, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)
OCT 17...	.00	.00	.00	.00	.00	.00	.00	.00	.00	0
APR 04...	.00	.00	.00	.00	.00	.00	.00	--	.00	0

K, NON-IDEAL COLONY COUNT.

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

01077000 SQUAM RIVER AT ASHLAND, NH

LOCATION.--Lat 43°42'19", long 71°37'49", Grafton County, Hydrologic Unit 01070001, on right bank 200 ft (60 m) upstream from highway bridge, 0.7 mi (1.1 km) north of Ashland, and 1.4 mi (2.3 km) downstream from Little Squam Lake.

DRAINAGE AREA.--57.6 mi^2 (149.2 km^2).

PERIOD OF RECORD.-Discharge: August 1939 to current year.
Water-quality records: Water year 1957.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 545 ft (166 m), from topographic map.

REMARKS.--Records good. Flow completely regulated by Squam and Little Squam Lakes. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--40 years, 88.7 ft^3/s (2.512 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,090 ft^3/s (30.9 m^3/s) July 4, 1973, gage height, 14.29 ft (4.356 m); minimum daily, 1.0 ft^3/s (0.029 m^3/s) July 4-7, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 604 ft^3/s (17.1 m^3/s) May 25, gage height, 12.23 ft (3.728 m); minimum daily, 4.8 ft^3/s (0.14 m^3/s) June 29 to July 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	60	60	59	60	59	135	204	199	4.8	60	63
2	59	60	60	60	60	59	135	204	120	4.8	60	63
3	59	60	60	60	60	59	137	204	120	4.8	65	63
4	61	60	60	60	60	59	139	169	118	4.8	71	63
5	63	60	60	60	61	59	139	139	118	4.8	71	63
6	64	60	60	60	60	61	176	139	118	4.8	70	63
7	64	60	60	60	60	63	207	139	118	4.8	71	63
8	64	60	60	60	63	61	207	139	118	4.8	71	63
9	64	60	60	60	63	62	207	139	118	4.8	71	63
10	63	60	60	60	61	61	207	139	117	4.8	70	63
11	63	60	60	60	61	63	207	115	117	27	70	63
12	62	59	60	60	61	61	207	101	117	59	70	63
13	62	59	60	60	64	61	207	101	117	59	65	63
14	60	59	60	60	63	72	207	101	117	59	59	63
15	60	59	60	59	61	82	207	101	117	60	59	63
16	60	59	60	59	61	82	207	101	117	60	59	63
17	60	60	60	59	61	82	207	101	117	59	59	63
18	60	61	60	59	61	82	169	101	88	59	59	63
19	60	61	60	60	61	82	139	101	79	59	58	62
20	60	61	60	60	61	82	139	101	78	60	58	61
21	60	61	60	60	61	92	139	101	77	60	57	61
22	60	61	60	60	60	101	139	81	76	60	57	61
23	60	60	60	60	57	120	139	64	76	60	57	61
24	60	60	60	60	57	135	137	120	75	60	61	61
25	60	60	60	60	57	137	137	375	74	60	64	61
26	60	60	60	61	57	135	137	461	73	60	64	61
27	60	60	59	61	59	135	139	362	72	60	64	61
28	60	60	59	61	59	135	139	359	72	60	63	61
29	60	60	59	61	---	135	139	305	44	60	63	61
30	60	60	59	60	---	135	167	259	4.8	60	63	61
31	60	---	59	60	---	135	---	259	---	60	63	---
TOTAL	1887	1800	1855	1859	1690	2747	4997	5385	2971.8	1269.0	1972	1867
MEAN	60.9	60.0	59.8	60.0	60.4	88.6	167	174	99.1	40.9	63.6	62.2
MAX	64	61	60	61	64	137	207	461	199	60	71	63
MIN	59	59	59	59	57	59	135	64	4.8	4.8	57	61

CAL YR 1978 TOTAL 35353.3 MEAN 96.9 MAX 249 MIN 2.3
WTR YR 1979 TOTAL 30299.8 MEAN 83.0 MAX 461 MIN 4.8

01078000 SMITH RIVER NEAR BRISTOL, NH

LOCATION.--Lat 43°34'04", long 71°44'54", Merrimack County, Hydrologic Unit 01070001, on right bank in Hill, 1.5 mi (2.4 km) upstream from mouth, and 1.8 mi (2.9 km) southwest of Bristol.

DRAINAGE AREA.--85.8 mi^2 (222.2 km^2).

PERIOD OF RECORD.--Discharge: May 1918 to current year.
Water quality records: Water years 1957, 1976,-78.

REVISED RECORDS.--WSP 711: Drainage area. WSP 781: 1934. WSP 1231: 1919, 1920-21(M), 1922-31, 1932-33(M), 1941-43.

GAGE.--Water-stage recorder. Datum of gage is 449.80 ft (137.099 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Nov. 25, 1933, nonrecording gage at site 1.5 mi (2.4 km) upstream at different datum.

REMARKS.--Records good except those for winter period and period of no gage-height record Feb. 1 to Mar. 7 which are fair. Prior to 1954, some diurnal fluctuation caused by small mill upstream; greater fluctuation prior to 1941. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--61 years, 143 ft^3/s (4.050 m^3/s), 22.63 in/yr (575 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,100 ft^3/s (229 m^3/s) Mar. 19, 1936, gage height, 16.09 ft (4.904 m), from floodmarks, from rating curve extended above 2,700 ft^3/s (76 m^3/s) on basis of contracted-opening measurement of peak flow; minimum daily, 2.7 ft^3/s (0.076 m^3/s) Aug. 2, 1933.
Maximum stage since at least 1885, that of Mar. 19, 1936.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,150 ft^3/s (32.6 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 26	0100	*1900	53.8	6.95	2.118	May 25	1600	1350	38.2	5.97	1.820

Minimum discharge, 7.6 ft^3/s (0.22 m^3/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	26	21	25	37	34	552	402	355	55	14	16
2	12	25	20	60	36	31	597	288	244	281	17	15
3	12	24	17	450	35	29	701	234	191	164	30	15
4	24	24	22	380	35	28	660	305	154	88	25	14
5	52	24	25	280	35	80	596	285	131	57	21	12
6	66	23	21	200	34	250	499	225	151	45	17	23
7	76	23	25	150	34	960	381	190	138	39	14	66
8	68	27	36	110	33	850	300	168	111	34	13	55
9	50	28	45	90	33	700	276	151	101	30	12	36
10	36	29	60	80	32	550	256	137	99	27	16	27
11	28	27	50	72	32	450	235	130	89	24	21	22
12	24	25	45	65	32	350	255	119	84	23	25	19
13	24	24	40	60	30	300	304	112	86	21	59	17
14	43	28	38	58	30	360	354	120	73	21	57	16
15	64	28	36	65	30	600	369	116	62	21	39	29
16	57	25	34	62	29	680	370	104	55	22	30	42
17	46	24	33	58	29	560	383	90	49	33	25	30
18	40	41	32	54	28	450	403	80	45	39	22	24
19	32	49	31	50	28	400	412	76	42	34	22	20
20	40	44	30	46	27	250	412	77	38	27	24	17
21	35	37	29	45	27	284	427	87	35	23	21	15
22	30	32	28	56	26	499	440	88	32	20	21	28
23	25	28	28	50	26	743	436	76	30	18	19	30
24	23	26	28	47	40	983	473	222	29	17	17	28
25	21	24	27	45	60	1660	425	1060	27	16	16	23
26	20	22	27	44	50	1780	364	1060	25	17	15	20
27	35	20	26	43	45	1120	530	786	24	17	18	18
28	34	17	26	42	37	717	980	452	22	18	19	16
29	31	21	26	41	---	471	918	497	38	17	19	22
30	28	24	25	40	---	379	661	551	45	16	20	28
31	26	---	25	38	---	464	---	475	---	14	18	---
TOTAL	1110.5	819	956	2906	950	17012	13969	8763	2605	1278	706	743
MEAN	35.8	27.3	30.8	93.7	33.9	549	466	283	86.8	41.2	22.8	24.8
MAX	76	49	60	450	60	1780	980	1060	355	281	59	66
MIN	8.5	17	17	25	26	28	235	76	22	14	12	12
CFSM	.42	.32	.36	1.09	.40	6.40	5.43	3.30	1.01	.48	.27	.29
IN.	.48	.36	.41	1.26	.41	7.38	6.06	3.80	1.13	.55	.31	.32

CAL YR 1978 TOTAL 51781.1 MEAN 142 MAX 1100 MIN 7.4 CFSM 1.66 IN 22.45
WTR YR 1979 TOTAL 51817.5 MEAN 142 MAX 1780 MIN 8.5 CFSM 1.66 IN 22.47

01078000 SMITH RIVER NEAR BRISTOL, NH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957, 1976 to April 1979.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO APRIL 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)
OCT 17...	1045	43	58	6.6	4.5	50	1	--	12.8	99	18
APR 04...	1100	600	32	5.7	6.0	15	--	2.0	12.3	99	--

DATE	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	C.O.D. TOTAL IN BOTTOM MATERIAL (MG/KG)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT 17...	--	--	K6	K5	K5	14	0	11	5.6	8.2	5.7
APR 04...	12	14000	K13	K1	K3	7	0	6	22	5.5	2.8

DATE	SOLIDS, SUSP. TOTAL, RESIDUE AT 110 DEG. C (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLATILE IN BOTTOM MATERIAL (MG/KG)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
OCT 17...	9	46	--	.04	.01	.36	.37	.41	.02	0	6
APR 04...	6	37	5430	.06	.00	.12	.12	.18	.01	1	1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)	OIL AND GREASE (MG/L)
OCT 17...	10	--	1	420	63	30	<.5	0	10	2	0
APR 04...	20	20	2	120	11	20	.5	0	10	6	--

DATE	OIL AND GREASE, TOTAL RECOV. GRAVIMETRIC (MG/L)	CHLOROPHYLL A PHYTOPLANKTON, UNCORR. (UG/L)	CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L)	CHLOROPHYLL B PHYTOPLANKTON, UNCORR. (UG/L)	CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L)	PCB, TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)
OCT 17...	--	.000	--	.000	--	.0	.00	.00	.0	.00	.00
APR 04...	1	--	.000	--	.000	.0	.00	.00	.0	.00	.00

DATE	DDT, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)
OCT 17...	.00	.00	.00	.00	.00	.00	.00	.00	.00	0
APR 04...	.00	.00	.00	.00	.00	.00	.00	--	.00	0

K, NON-IDEAL COLONY COUNT.

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

01079600 POORFARM BROOK NEAR GILFORD, NH

LOCATION.--Lat 43°33'19", long 71°21'52", Belknap County, Hydrologic Unit 01070002, on right bank 10 ft (3 m) upstream from bridge on State Highway 11A, 1.5 mi (2.4 km) upstream from mouth, and 3 mi (5 km) east of Gilford.

DRAINAGE AREA.--5.00 mi² (12.95 km²).

PERIOD OF RECORD.--March 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 820 ft (250 m), from topographic map.

REMARKS.--Records good except those for winter period and period of no gage-height record, Jan. 19 to Feb. 21, 1979, which are fair. Several observations of water temperature and specific conductance were made during the year.

EXTREMES FOR PERIOD MARCH TO SEPTEMBER 1978.--Peak discharge above base of 100 ft³/s (2.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 27	1745	a113	3.20	2.78	0.847	Apr. 20	0330	a142	4.02	2.96	0.902
Apr. 12	1730	a103	2.92	2.73	0.832	May 16	0230	a*250	7.08	3.27	0.997

a From rating curve extended above 50 ft³/s (1.4 m³/s).

Minimum discharge, 0.10 ft³/s (0.003 m³/s) Sept. 21-28.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 100 ft³/s (2.8 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 3	0130	a296	8.38	3.39	1.033	Apr. 27	1215	a185	5.24	3.07	0.936
Mar. 6	0815	a290	8.2	b*5.34	1.628	May 25	1445	a*453	12.8	3.72	1 134
Mar. 25	0845	a219	6.20	3.18	0.969						

a From rating curve extended above 50 ft³/s (1.4 m³/s).
b Ice jam.

Minimum discharge, 0.08 ft³/s (0.002 m³/s) Aug. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, MARCH TO SEPTEMBER 1978
MEAN VALUES

DAY	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	27	21	3.9	1.1	.98	.72
2	3.9	39	17	3.5	.98	.91	.56
3	3.6	26	15	4.4	.78	.66	.46
4	3.3	22	14	7.0	.61	3.7	.37
5	3.1	30	13	4.4	.51	3.5	.23
6	3.0	32	12	3.9	.46	2.0	.23
7	2.8	28	11	3.3	.37	1.5	.29
8	2.7	27	9.8	11	.26	3.0	.20
9	2.6	27	14	15	.26	7.0	.16
10	2.5	28	15	11	.26	4.5	.16
11	2.7	36	11	6.4	.23	3.0	.23
12	2.9	74	9.4	4.6	.20	2.0	1.2
13	3.0	74	8.0	3.9	.20	1.5	.51
14	4.6	75	7.0	4.6	.12	1.0	.29
15	9.0	50	49	3.5	.23	.70	.29
16	6.4	37	155	2.7	.33	.50	.33
17	5.0	32	97	2.4	12	.46	.23
18	4.5	41	39	2.2	4.6	.46	.18
19	4.0	48	27	4.6	2.1	.37	.18
20	3.8	115	21	9.4	1.3	.33	.18
21	3.7	74	19	6.7	.72	.26	.16
22	12	61	15	6.0	.66	.23	.10
23	11	51	12	3.9	1.6	.23	.10
24	10	44	11	3.0	1.2	.61	.10
25	9.5	46	9.4	2.5	.66	1.4	.10
26	8.3	42	8.7	2.0	.37	.56	.10
27	24	37	7.3	1.9	.37	.46	.10
28	35	32	6.0	1.7	2.8	.78	.10
29	33	29	5.2	1.6	1.5	1.4	.14
30	28	26	3.5	.98	1.4	.78	.16
31	25	---	3.5	---	.98	.66	---
TOTAL	277.2	1310	665.8	141.98	39.16	45.44	8.16
MEAN	8.94	43.7	21.5	4.73	1.26	1.47	.27
MAX	35	115	155	15	12	7.0	1.2
MIN	2.5	22	3.5	.98	.12	.23	.10
CFSM	1.79	8.74	4.30	.95	.25	.29	.05
IN.	2.06	9.74	4.95	1.06	.29	.34	.06

01079600 POORFARM BROOK NEAR GILFORD, N.H.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	1.4	1.1	10	2.2	2.4	35	22	27	2.7	.37	.66
2	.26	1.3	.84	168	2.2	2.3	37	18	21	7.0	.60	.61
3	.26	1.2	.61	117	2.1	2.2	45	16	16	3.1	1.0	.56
4	.26	1.1	1.1	70	2.1	2.5	44	21	13	1.9	.70	.51
5	1.6	.91	.90	35	2.1	15	38	16	11	1.4	.50	.41
6	3.5	.91	.72	18	2.1	170	29	14	14	1.5	.37	1.3
7	1.9	.98	.76	11	2.1	90	24	11	9.4	.61	.25	2.8
8	1.6	1.5	.84	8.0	2.0	60	19	11	8.0	.61	.26	1.7
9	1.1	1.7	1.0	6.6	2.0	50	18	8.3	7.3	.61	.11	1.1
10	.84	1.2	1.3	5.6	2.0	40	17	8.1	6.7	.51	.72	.78
11	.56	1.1	2.1	4.5	2.0	65	16	7.4	5.4	.46	.91	.66
12	.46	1.0	1.7	4.0	2.0	47	16	7.0	5.2	.46	.91	.46
13	.46	.90	1.3	3.8	2.0	49	18	5.4	4.6	.41	3.7	.41
14	1.7	.94	1.0	3.6	2.0	34	20	5.4	3.7	1.1	2.5	1.2
15	2.1	.96	.96	3.4	2.0	39	19	5.4	3.3	1.4	1.3	3.1
16	1.9	.90	1.1	3.2	2.0	53	19	5.4	2.8	1.1	.98	1.7
17	1.6	.85	.96	3.1	2.0	21	18	4.4	2.0	3.9	.72	1.2
18	1.3	3.5	1.2	3.0	2.0	20	19	4.4	2.1	2.4	.51	.72
19	1.2	4.1	3.3	2.9	2.0	16	19	4.4	2.7	1.9	.61	.61
20	1.3	2.0	1.6	3.4	2.0	16	20	4.4	2.5	1.3	1.1	.38
21	1.2	1.6	1.2	3.8	2.0	24	22	4.4	2.0	.91	.84	.67
22	1.1	1.4	1.1	4.6	2.0	43	24	3.9	1.6	.72	.72	3.4
23	.91	1.3	.90	3.8	2.0	75	27	3.5	1.6	.41	.56	4.5
24	.84	1.1	.80	3.3	3.7	105	29	18	1.6	.41	.51	2.8
25	.84	1.0	.76	2.9	7.0	185	26	176	1.4	.41	.29	1.7
26	.98	.97	.70	2.7	5.0	92	23	101	1.2	.41	.26	1.3
27	2.1	.90	.68	2.5	2.8	49	92	50	.91	.46	.26	1.0
28	2.1	.88	.66	2.3	2.5	32	65	31	.84	.58	.26	.82
29	2.0	.90	.64	2.3	---	26	38	43	.84	.51	.72	1.5
30	1.8	.98	.62	2.2	---	26	28	42	.84	.47	1.7	1.3
31	1.6	---	.62	2.2	---	28	---	49	---	.41	1.2	---
TOTAL	39.57	39.48	33.07	516.7	67.9	1479.4	864	720.8	180.53	40.07	25.44	39.86
MEAN	1.28	1.32	1.07	16.7	2.43	47.7	28.8	23.3	6.02	1.29	.82	1.33
MAX	3.5	4.1	3.3	168	7.0	185	92	176	27	7.0	3.7	4.5
MIN	.20	.85	.61	2.2	2.0	2.2	16	3.5	.84	.41	.11	.38
CFSM	.26	.26	.21	3.34	.49	9.54	5.76	4.66	1.20	.26	.16	.27
IN.	.29	.29	.25	3.84	.51	11.00	6.43	5.36	1.34	.30	.19	.30

WTR YR 1979 TOTAL 4046.82 MEAN 11.1 MAX 185 MIN .11 CFSM 2.22 IN 30.10

01080000 LAKE WINNIPESAUKEE AT WEIRS BEACH, NH

LOCATION.--Lat 43°36'27", long 71°27'30", Belknap County, Hydrologic Unit 01070002, 1,300 ft (400 m) north of highway bridge at Weirs Beach.

DRAINAGE AREA.--363 mi² (940 km²) at outlet at Lakeport.

PERIOD OF RECORD.--Gage heights: September 1933 to current year. Prior to November 1937, monthend contents only, published in WSP 1301. Prior to October 1970, published as "at The Weirs."

REVISED RECORDS.--WDR NH-VT-78-1: 1938-77 (datum correction).

GAGE.--Water-stage recorder. Datum of gage is 499.92 ft (152.376 m) National Geodetic Vertical Datum of 1929. Prior to November 1937, nonrecording gage at lake outlet at Lakeport at datum 0.63 ft, corrected, (0.192 m) higher. Nov. 24, 1937, to Nov. 7, 1965, water-stage recorder at site 500 ft (150 m) south at present datum.

REMARKS.--Lake used for recreation and conservation for development of water power. Usable capacity, 7,220,000,000 ft³ (204,000,000 m³) between elevations 500.65 ft (152.598 m) and 504.32 ft (153.717 m) National Geodetic Vertical Datum of 1929. Stage regulated at outlet and by Wentworth, Merrymeeting (Reservoirs in Merrimack River basin), and other lakes. Contents given herein are computed from gage height at 2400 on last day of month, eliminating the effect of seiche and wind action.

Capacity table (gage height, in feet, and contents, in millions of cubic feet)

2.0	13,880
3.0	15,840
4.0	17,840
5.0	19,850

EXTREMES FOR PERIOD OF RECORD.--Maximum daily gage height, 5.86 ft (1.786 m) May 22, 23, 1954; minimum daily, 0.63 ft (0.192 m) Dec. 11, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum daily gage height, 4.93 ft (1.5027 m) May 31; minimum daily, 2.26 ft (0.689 m) Dec. 18.

MEAN GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.00	2.72	2.34	2.39	2.91	2.49	3.57	4.58	4.92	4.11	3.90	3.65
2	2.99	2.69	2.30	2.45	2.88	2.56	3.63	4.56	4.89	4.18	3.95	3.65
3	2.99	2.69	2.30	2.50	2.86	2.50	3.72	4.57	4.85	4.15	3.94	3.66
4	2.98	2.68	2.34	2.55	2.85	2.51	3.76	4.62	4.80	4.13	3.93	3.64
5	3.00	2.66	2.34	2.55	2.83	2.49	3.85	4.58	4.75	4.10	3.91	3.63
6	3.05	2.65	2.34	2.56	2.73	2.53	3.87	4.59	4.70	4.06	3.86	3.65
7	3.04	2.64	2.32	2.60	2.76	2.76	3.88	4.57	4.65	4.06	3.83	3.65
8	3.00	2.64	2.34	2.70	2.74	2.86	3.89	4.56	4.59	4.05	3.79	3.64
9	2.96	2.62	2.37	2.71	2.72	2.91	3.93	4.54	4.54	4.05	3.74	3.61
10	2.94	2.61	2.39	2.73	2.70	2.95	3.95	4.53	4.47	4.04	3.76	3.58
11	2.94	2.60	2.38	2.72	2.66	3.06	3.96	4.53	4.41	4.01	3.77	3.53
12	2.93	2.57	2.38	2.73	2.65	3.07	3.97	4.52	4.34	4.00	3.79	3.53
13	2.91	2.57	2.38	2.72	2.64	3.10	4.01	4.52	4.29	4.00	3.80	3.52
14	2.96	2.54	2.34	2.76	2.60	3.07	4.03	4.53	4.29	3.99	3.79	3.51
15	2.92	2.51	2.35	2.73	2.59	3.05	4.06	4.53	4.26	3.99	3.76	3.52
16	2.91	2.49	2.35	2.75	2.58	3.05	4.09	4.52	4.26	3.98	3.74	3.52
17	2.90	2.50	2.33	2.73	2.52	3.04	4.12	4.49	4.26	4.03	3.72	3.51
18	2.88	2.51	2.26	2.76	2.57	3.00	4.14	4.50	4.26	4.05	3.70	3.49
19	2.86	2.51	2.28	2.71	2.54	2.99	4.16	4.50	4.28	4.04	3.71	3.44
20	2.86	2.49	2.32	2.73	2.47	2.96	4.17	4.50	4.28	4.03	3.71	3.41
21	2.85	2.48	2.34	2.77	2.46	2.96	4.20	4.49	4.25	4.01	3.69	3.40
22	2.85	2.47	2.35	2.84	2.42	3.00	4.22	4.47	4.24	3.99	3.69	3.46
23	2.83	2.45	2.35	2.83	2.40	3.05	4.24	4.48	4.20	3.99	3.68	3.46
24	2.79	2.46	2.35	2.83	2.41	3.12	4.25	4.55	4.16	3.98	3.67	3.45
25	2.79	2.40	2.38	2.83	2.48	3.24	4.28	4.73	4.11	3.97	3.65	3.44
26	2.79	2.35	2.38	2.95	2.47	3.34	4.29	4.84	4.11	3.97	3.64	3.40
27	2.78	2.40	2.35	2.93	2.49	3.39	4.39	4.85	4.07	3.98	3.61	3.40
28	2.79	2.37	2.33	2.90	2.49	3.44	4.48	4.85	4.06	3.97	3.62	3.38
29	2.76	2.35	2.36	2.91	---	3.46	4.52	4.89	4.07	3.95	3.67	3.40
30	2.75	2.34	2.36	2.88	---	3.50	4.56	4.90	4.07	3.94	3.70	3.40
31	2.73	---	2.35	2.89	---	3.55	---	4.93	---	3.92	3.66	---
MEAN	2.89	2.53	2.34	2.73	2.62	3.00	4.07	4.61	4.38	4.02	3.75	3.52
MAX	3.05	2.72	2.39	2.95	2.91	3.55	4.56	4.93	4.92	4.18	3.95	3.66
MIN	2.73	2.34	2.26	2.39	2.40	2.49	3.57	4.47	4.06	3.92	3.61	3.38
(†)	15310	14510	14580	15630	14840	16960	19000	19690	18080	17660	1 40	16640
(‡)	-205	-309	+26.1	-392	-327	+792	+787	+258	-621	-157	-194	-193

CAL YR 1978 MEAN 3.37 MAX 4.71 MIN 2.26
WTR YR 1979 MEAN 3.38 MAX 4.93 MIN 2.26

† Contents, in millions of cubic feet at 2400 on last day of month.
‡ Change in contents, equivalent in cubic feet per second.

01080500 LAKE WINNIPESAUKEE OUTLET AT LAKEPORT, NH

LOCATION.--Lat 43°32'57", long 71°27'54", Belknap County, Hydrologic Unit 01070002, 100 ft (30 m) upstream from highway bridge across Paugus Bay at Lakeport.

DRAINAGE AREA.--363 mi^2 (940 km^2).

PERIOD OF RECORD.--Discharge: January 1860 to December 1911 (monthly gage heights only, published in WSP 301), June 1933 to current year.
Water-quality records: Water years 1954-55.

GAGE.--Water-stage recorder, Keeler deflection meter, and measuring flume. Datum of gage is 500.55 ft (152.568 m) National Geodetic Vertical Datum of 1929. January 1860 to December 1911, nonrecording gage at site 150 ft (46 m) downstream at same datum. June 1, 1933, to Sept. 30, 1936, nonrecording gage and continuous-recording current meter at present site and datum. Oct. 1, 1936, to May 23, 1944, discharge computed from flow over spillway and through gates and wheels at site 150 ft (46 m) downstream.

REMARKS.--Records good. Flow completely regulated by Winnipesaukee (station 01080000), Wentworth, Merrymeeting (Reservoirs in Merrimack River basin), and other lakes. Daily discharge computed from relation between discharge, stage and deflection of vane in measuring flume. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--46 years, 535 ft^3/s (15.15 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,890 ft^3/s (81.8 m^3/s) Mar. 31, 1936; no flow Sept. 29, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,770 ft^3/s (50.1 m^3/s) June 8; minimum daily, 220 ft^3/s (6.23 m^3/s) Dec. 13, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	270	250	250	240	720	700	1030	715	1760	300	245	250
2	265	255	240	240	710	705	1030	890	1720	280	250	250
3	265	255	240	245	700	690	1040	890	1710	310	250	250
4	270	240	240	250	700	690	1040	895	1650	295	250	250
5	270	240	240	250	700	690	1050	900	1690	300	250	250
6	275	240	240	250	700	700	1060	890	1700	300	250	250
7	280	240	240	250	700	805	1050	890	1730	280	245	250
8	280	240	240	260	700	1000	1050	890	1770	280	245	250
9	280	270	230	420	705	1400	1050	890	1620	265	245	250
10	280	295	230	525	700	1400	1060	740	1660	250	245	250
11	280	275	230	525	700	1400	690	660	970	250	250	250
12	275	275	230	520	700	1400	660	630	605	250	250	250
13	275	275	220	530	700	1400	660	630	500	250	250	250
14	280	270	230	530	700	1400	625	610	430	250	250	250
15	275	280	220	535	690	1400	630	645	430	250	250	250
16	275	280	240	535	685	1400	635	645	325	250	250	250
17	275	280	240	535	675	1390	630	500	270	250	250	250
18	270	285	240	530	670	1390	635	410	285	250	250	250
19	270	285	240	530	675	1380	650	340	285	250	250	250
20	270	285	240	500	675	1400	470	305	285	250	250	250
21	270	280	240	500	685	1170	340	310	300	250	250	250
22	270	280	240	500	680	990	340	345	285	250	250	250
23	270	280	240	500	690	1360	355	355	280	250	250	250
24	270	280	240	500	690	1400	365	650	280	250	250	250
25	270	280	240	500	690	1420	360	1390	295	250	250	250
26	255	280	240	650	700	1450	360	1640	300	250	250	250
27	255	280	240	725	700	1210	360	1630	295	250	250	250
28	250	280	230	725	700	1030	355	1630	295	250	250	250
29	250	280	230	735	---	1030	360	1640	295	250	250	250
30	255	280	240	725	---	1030	365	1610	300	250	250	250
31	255	---	240	740	---	1020	---	1670	---	250	250	---
TOTAL	8350	8115	7340	15000	19440	35850	20305	26835	24320	8110	7725	7500
MEAN	269	271	237	484	694	1156	677	866	811	262	249	250
MAX	280	295	250	740	720	1450	1060	1670	1770	310	250	250
MIN	250	240	220	240	670	690	340	305	270	250	245	250

CAL YR 1978 TOTAL 209850 MEAN 575 MAX 1820 MIN 220
WTR YR 1979 TOTAL 188890 MEAN 518 MAX 1770 MIN 220

01081000 WINNIPESAUKEE RIVER AT TILTON, NH

LOCATION.--Lat 43°26'31", long 71°35'20", Belknap County, Hydrologic Unit 01070002, on right bank at Tilton and 0.3 mi (0.5 km) upstream from Packer Brook.

DRAINAGE AREA.--471 mi² (1,220 km²).

PERIOD OF RECORD.--Discharge: January 1937 to current year.
Water-quality records: Water year 1953.

REVISED RECORDS.--WSP 1901: 1960.

GAGE.--Water-stage recorder. Datum of gage is 441.87 ft (134.682 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by powerplants prior to 1967 and by Winnipesaukee (station 01080000), Winnisquam 4.5 mi (7.2 km) upstream, Wentworth, Merrymeeting (Reservoirs in Merrimack River basin), and other lakes upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--42 years, 703 ft³/s (19.91 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,810 ft³/s (108 m³/s) Sept. 21, 1938, gage height, 7.90 ft (2.408 m); maximum gage height, 7.93 ft (2.417 m) Mar. 27, 1953; minimum daily discharge, 48 ft³/s (1.36 m³/s) Aug. 31, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,760 ft³/s (78.2 m³/s) Mar. 26, gage height, 6.75 ft (2.057 m); minimum daily, 238 ft³/s (6.74 m³/s) Dec. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	292	465	333	250	872	864	1780	780	2250	321	265	322
2	296	447	321	297	861	860	1760	1000	2180	448	289	306
3	293	421	312	434	850	850	1900	1020	2130	431	308	312
4	299	397	313	450	836	840	1890	1080	2100	395	304	317
5	320	378	306	430	814	861	1850	1100	2080	373	292	309
6	348	358	327	396	810	1000	1800	1080	2080	355	282	323
7	352	343	316	378	840	1500	1740	1060	2050	339	261	369
8	335	341	315	431	815	1840	1660	1040	2010	328	252	352
9	320	336	341	472	803	1880	1620	1030	1990	326	246	327
10	308	327	355	491	824	1940	1620	1030	1970	324	265	307
11	310	324	333	495	785	2060	1580	990	1920	325	308	297
12	305	320	313	500	785	2100	1480	938	1700	323	320	287
13	303	315	299	514	765	2050	1340	908	1250	319	367	282
14	318	316	287	549	775	2020	1220	892	689	315	347	284
15	326	322	281	559	780	2040	1180	775	343	316	324	329
16	315	337	267	563	760	1980	1080	537	318	310	307	320
17	304	335	271	570	750	1940	909	530	327	370	287	309
18	295	358	255	588	755	1900	845	478	340	368	276	300
19	292	362	250	590	745	1870	592	471	353	351	286	298
20	293	357	255	585	740	1890	580	466	353	331	292	293
21	273	363	263	625	734	1950	558	461	350	311	265	317
22	285	354	262	646	736	2020	556	465	344	301	283	387
23	290	345	253	638	736	2050	558	457	343	292	277	397
24	310	356	248	632	775	2190	563	633	342	284	274	371
25	318	346	272	675	825	2550	562	1390	342	292	275	351
26	365	337	275	720	873	2710	557	1990	331	294	274	338
27	376	334	261	779	882	2540	626	1950	316	304	274	324
28	365	358	255	792	872	2270	808	2000	283	297	286	314
29	354	344	245	812	---	2030	808	2220	264	286	371	333
30	300	339	240	846	---	1870	740	2230	272	281	365	333
31	340	---	238	867	---	1810	---	2250	---	269	351	---
TOTAL	9800	10635	8862	17574	22398	56275	34762	33251	31540	10179	9193	9708
MEAN	316	355	286	567	800	1815	1159	1073	1051	328	297	324
MAX	376	465	355	867	882	2710	1900	2250	2250	448	371	397
MIN	273	315	238	250	734	840	556	457	264	269	246	282

CAL YR 1978 TOTAL 275324 MEAN 754 MAX 2590 MIN 238
WTR YR 1979 TOTAL 254177 MEAN 696 MAX 2710 MIN 238

01083000 NUBANUSIT BROOK NEAR PETERBOROUGH, NH

LOCATION.--Lat 42°53'10", long 71°58'24", Hillsborough County, Hydrologic Unit 01070003, on left bank 1.2 mi (1.9 km) downstream from Edward MacDowell Reservoir, 1.3 mi (2.1 km) northwest of Peterborough, and 1.5 mi (2.4 km) upstream from mouth.

DRAINAGE AREA.--46.9 mi² (121.5 km²).

PERIOD OF RECORD.--October 1920 to September 1931, July 1945 to current year. Monthly discharge only October 1920, published in WSP 1301.

REVISED RECORDS.--WSP 561: 1921(M). WSP 1051: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 790 ft (241 m), from topographic map. Prior to Oct. 1, 1931, at site 550 ft (170 m) downstream at different datum.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by mills and Nubanusit Lake, Edward MacDowell Reservoir since 1950 (Reservoirs in Merrimack River basin), and other reservoirs upstream. An observation of water temperature and specific conductance was made during the year.

AVERAGE DISCHARGE.--45 years, 84.0 ft³/s (2.379 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,130 ft³/s (32.0 m³/s) Apr. 11, 1931, gage height, 5.59 ft (1.704 m), site and datum then in use, from rating curve extended above 380 ft³/s (11 m³/s); minimum daily, 0.5 ft³/s (0.014 m³/s) Aug. 1, 1926. Maximum discharge since construction of Edward MacDowell Reservoir in 1950, 699 ft³/s (19.8 m³/s) Apr. 12, 1960, gage height, 4.54 ft (1.384 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 608 ft³/s (17.2 m³/s) Mar. 21, gage height, 4.17 ft (1.271 m); minimum daily, 4.5 ft³/s (0.13 m³/s) Nov. 15-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	17	16	31	55	68	533	342	314	15	39	75
2	7.2	17	16	80	45	60	477	316	273	14	39	59
3	7.2	17	16	82	43	56	404	227	216	14	39	39
4	8.3	17	16	224	42	50	330	181	175	16	39	32
5	8.1	15	17	156	41	45	368	160	122	18	37	31
6	41	15	17	108	39	40	459	130	102	17	24	33
7	47	15	17	220	39	38	432	104	101	17	24	70
8	27	15	17	72	38	37	398	96	89	17	24	92
9	21	9.8	27	103	37	70	295	90	65	16	24	51
10	21	6.0	44	66	36	140	267	77	55	16	26	39
11	16	5.9	55	112	35	75	245	71	55	16	34	30
12	14	5.2	57	235	35	200	194	59	55	16	46	30
13	14	4.7	54	200	34	450	186	53	54	19	82	34
14	15	4.6	39	80	34	579	197	53	53	22	101	31
15	15	4.5	24	70	33	593	204	53	50	22	83	20
16	15	4.5	24	65	33	594	213	53	37	22	57	11
17	15	4.5	22	62	32	588	222	53	25	31	38	11
18	14	5.0	21	60	32	568	225	53	23	54	32	13
19	14	10	20	58	31	573	220	53	22	82	33	12
20	15	16	17	56	30	576	200	36	22	86	41	11
21	24	16	8.1	55	30	567	179	39	21	68	59	32
22	28	16	7.9	55	28	554	172	49	21	59	53	97
23	28	16	11	90	27	550	169	48	20	40	45	130
24	21	16	23	111	25	353	158	69	9.3	23	40	216
25	16	16	28	45	18	58	141	135	13	19	37	101
26	16	16	28	49	40	202	141	323	13	18	37	95
27	18	16	35	74	60	453	159	457	13	20	37	92
28	17	16	37	88	70	534	180	495	13	34	38	82
29	17	16	35	100	---	556	198	514	14	40	48	84
30	17	16	33	72	---	565	291	501	13	40	83	82
31	17	---	28	62	---	558	---	449	---	39	85	---
TOTAL	561.0	368.7	810.0	2941	1042	10350	7857	5339	2058.3	930	1424	1735
MEAN	18.1	12.3	26.1	94.9	37.2	334	262	172	68.6	30.0	45.9	57.8
MAX	47	17	57	235	70	594	533	514	314	86	101	216
MIN	7.2	4.5	7.9	31	18	37	141	36	9.3	14	24	11

CAL YR 1978 TOTAL 29570.4 MEAN 81.0 MAX 500 MIN 4.5
WTR YR 1979 TOTAL 35416.0 MEAN 97.0 MAX 594 MIN 4.5

01085500 CONTOOCOOK RIVER BELOW HOPKINTON DAM, AT WEST HOPKINTON, NH

LOCATION.--Lat 43°11'31", long 71°44'51", Merrimack County, Hydrologic Unit 01070003, on right bank 400 ft (100 m) downstream from covered bridge at West Hopkinton, 0.2 mi (0.3 km) downstream from Hopkinton Dam, and 5.9 mi (9.5 km) upstream from Warner River.

DRAINAGE AREA.--427 mi^2 (1,106 km^2).

PERIOD OF RECORD.--August 1903 to April 1907 (no winter records), August 1963 to current year. Published as "at West Hopkinton" 1903-7.

GAGE.--Water-stage recorder. Altitude of gage is 355 ft (108 m), from topographic map. August 1903 to April 1907, nonrecording gage at site 400 ft (100 m) upstream at different datum.

REMARKS.--Records fair. Flow regulated by powerplants and by Nubanusit Lake, Edward Macdowell Reservoir since 1950, Highland Lake, Lake Franklin Pierce, Hopkinton Lake since 1962 (Reservoirs in Merrimack River basin), and other reservoirs upstream. Diversion from Hopkinton Lake to Everett Lake on Piscataquog River during periods of high flow in March 1968, April 1969, March 1977, and March 1979. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--16 years (water years 1963-79), 703 ft^3/s (19.91 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,620 ft^3/s (187 m^3/s) Mar. 17, gage height, 10.04 ft (3.060 m); minimum daily, 15 ft^3/s (0.42 m^3/s) July 22, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,670 ft^3/s (132 m^3/s) Mar. 29, gage height, 7.99 ft (2.435 m); maximum gage height, 8.97 ft (2.734 m) Mar. 15 (ice jam); minimum daily discharge, 48 ft^3/s (1.36 m^3/s) Oct. 2, Nov. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	138	75	229	500	640	2860	2410	2610	211	172	367
2	48	157	157	357	470	620	2810	2140	1880	161	310	377
3	51	148	89	1340	440	580	3050	1730	1590	261	377	392
4	62	211	124	2570	410	500	3030	1600	1200	300	342	333
5	72	164	229	2560	400	490	2990	1450	1160	154	274	377
6	102	141	296	2240	380	560	2850	1360	922	192	222	367
7	138	245	203	1730	360	490	2700	1160	799	174	174	521
8	99	257	161	1520	350	760	2380	934	586	110	148	586
9	167	261	278	1200	340	1600	2120	884	574	104	148	568
10	178	261	296	1000	330	2300	1940	724	538	113	127	459
11	91	261	407	900	320	2500	1730	669	500	148	214	487
12	113	96	503	800	310	3200	1680	593	454	138	178	387
13	99	135	337	700	300	3800	1750	481	492	121	314	372
14	68	226	280	600	190	4400	1880	454	487	102	521	367
15	110	185	240	560	190	4500	1950	498	433	94	622	291
16	151	79	200	520	180	4400	1970	498	362	130	476	245
17	164	171	170	480	180	4000	1950	470	287	171	337	147
18	102	135	150	460	170	3600	1920	433	157	214	314	178
19	167	82	180	440	170	3200	1880	397	218	335	274	203
20	138	154	220	440	170	2800	1800	362	211	352	266	154
21	138	229	274	450	260	2300	1700	407	164	300	347	141
22	86	229	249	430	260	2500	1510	433	157	262	372	229
23	141	226	174	420	250	2900	1480	362	135	203	357	283
24	196	203	167	410	250	3200	1430	532	84	214	333	333
25	121	229	218	835	320	3600	1400	2950	135	135	296	438
26	127	151	296	781	440	4080	1380	3990	154	178	253	470
27	135	48	412	700	560	4430	1490	4300	132	315	199	433
28	113	211	300	640	650	4540	2230	4150	135	347	222	412
29	89	151	230	600	---	4560	2530	3840	141	300	226	402
30	151	118	190	550	---	4150	2520	3500	148	262	412	377
31	178	---	210	520	---	3250	---	2950	---	233	323	---
TOTAL	3677	5302	7315	26982	9150	84450	62910	46661	16845	6334	9150	10696
MEAN	119	177	236	870	327	2724	2097	1505	562	204	295	357
MAX	196	261	503	2570	650	4560	3050	4300	2610	352	622	586
MIN	48	48	75	229	170	490	1380	362	84	94	127	141
(†)	0	0	0	0	0	1200	0	0	0	0	0	0

CAL YR 1978 TOTAL 230642 MEAN 632 MAX 3260 MIN 35
WTR YR 1979 TOTAL 289472 MEAN 793 MAX 4560 MIN 48

† Diversion from Hopkinton Lake to Everett Lake on Piscataquog River.

01085800 WEST BRANCH WARNER RIVER NEAR BRADFORD, NH

LOCATION.--Lat 43°15'33", long 72°01'35", Merrimack County, Hydrologic Unit 01070003, on left bank 75 ft (23 m) downstream from small right-bank tributary, 200 ft (60 m) upstream from highway bridge, and 3.5 mi (5.6 km) west of Bradford.

DRAINAGE AREA.--5.75 mi^2 (14.89 km^2).

PERIOD OF RECORD.--Discharge: May 1962 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 950 ft (290 m), from topographic map.

REMARKS.--Records good except those for winter period, and period of no gage-height record, Mar. 18 to Apr. 2, which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--17 years, 11.5 ft^3/s (0.326 m^3/s) 27.16 in/yr (690 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 603 ft^3/s (17.1 m^3/s) Apr. 1, 1976, gage height, 8.49 ft (2.588 m), from rating curve extended above 210 ft^3/s (5.9 m^3/s); minimum, about 0.06 ft^3/s (0.002 m^3/s) about Sept. 20, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 110 ft^3/s (3.1 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 2	--	150	4.2	unknown		Apr. 28	0015	305	8.64	7.39	2.25
Mar. 7	0030	200	5.7	ice jam		May 24	1930	*410	11.6	7.92	2.41
Mar. 25	--	200	5.7	unknown							

Minimum discharge, 0.31 ft^3/s (0.009 m^3/s) Aug. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.36	1.1	1.8	4.0	1.2	2.8	45	23	18	2.4	.68	.99
2	.44	1.2	1.7	100	1.2	2.5	40	18	13	2.0	.64	.75
3	.44	1.1	1.5	30	1.2	2.3	50	16	10	1.4	.72	1.9
4	.54	1.1	2.1	20	1.1	2.1	47	26	8.4	1.1	.68	1.4
5	1.4	1.0	5.5	15	1.1	10	38	18	7.0	.90	.54	.93
6	5.0	1.0	4.1	11	1.1	100	28	14	5.9	.75	.54	9.4
7	2.1	1.0	3.1	9.5	1.0	110	22	12	4.8	.68	.51	9.9
8	1.2	1.3	3.8	8.0	1.0	50	18	11	4.1	.60	.38	3.5
9	1.0	1.5	15	7.0	1.0	30	17	9.9	3.8	.55	.33	2.0
10	.93	1.3	9.4	6.0	1.0	32	17	8.9	3.4	.50	.56	1.5
11	.84	1.2	5.2	5.2	.98	56	15	7.6	2.9	1.0	.93	1.1
12	.80	1.2	4.4	4.5	.96	37	20	6.3	3.6	.80	1.9	.90
13	.84	1.1	3.8	4.0	.94	30	25	6.5	2.8	.72	6.3	.80
14	3.3	1.1	3.4	3.5	.93	31	26	7.6	2.4	.64	2.2	.80
15	3.8	1.0	2.8	3.1	.92	37	24	6.7	2.1	.61	1.3	2.3
16	2.0	1.0	2.4	2.8	.91	33	27	5.5	1.7	.84	1.3	1.9
17	1.4	1.0	2.3	2.5	.91	19	30	4.5	1.7	4.1	.84	1.2
18	1.2	4.5	2.1	2.3	.90	17	33	4.2	1.6	2.1	.70	.87
19	1.2	3.6	1.9	2.1	.90	15	35	4.7	1.4	1.8	1.8	.76
20	1.3	2.6	1.8	2.0	.90	16	36	9.1	1.2	1.1	1.7	.62
21	1.4	2.1	1.7	1.8	.90	25	41	11	1.1	.88	1.1	.64
22	1.2	1.8	1.6	1.7	.90	40	41	8.1	1.0	.72	.85	1.1
23	1.2	1.7	1.6	1.7	.90	60	52	5.9	1.1	.61	.71	.90
24	1.7	1.9	1.5	1.6	2.0	80	47	145	1.0	.54	.66	.70
25	1.4	2.0	1.5	1.5	5.0	120	40	232	.94	.54	.64	.60
26	2.8	1.8	1.4	1.4	4.4	80	34	100	.88	.72	.58	.56
27	3.8	1.6	1.4	1.4	3.7	60	110	51	.80	1.6	1.7	.52
28	2.7	1.6	1.4	1.3	3.0	45	121	29	.75	.98	3.2	.46
29	1.6	1.6	1.3	1.3	---	40	62	59	1.1	.80	2.4	.70
30	1.2	1.7	1.3	1.3	---	50	34	49	.90	1.1	3.7	1.0
31	1.2	---	1.3	1.2	---	55	---	30	---	.88	1.5	---
TOTAL	50.29	47.7	94.1	258.7	40.95	1287.7	1175	939.5	109.37	33.96	41.59	50.70
MEAN	1.62	1.59	3.04	8.35	1.46	41.5	39.2	30.3	3.65	1.10	1.34	1.69
MAX	5.0	4.5	15	100	5.0	120	121	232	18	4.1	6.3	9.9
MIN	.36	1.0	1.3	1.2	.90	2.1	15	4.2	.75	.50	.33	.46
CFSM	.28	.28	.53	1.45	.25	7.22	6.82	5.27	.64	.19	.23	.29
IN.	.33	.31	.61	1.67	.26	8.33	7.60	6.08	.71	.22	.27	.33

CAL YR 1978 TOTAL 3946.82 MEAN 10.8 MAX 191 MIN .14 CFSM 1.88 IN 25.53
WTR YR 1979 TOTAL 4129.56 MEAN 11.3 MAX 232 MIN .33 CFSM 1.97 IN 26.71

01087000 BLACKWATER RIVER NEAR WEBSTER, NH

LOCATION.--Lat 43°17'45", long 71°41'46", Merrimack County, Hydrologic Unit 01070003, on left bank 0.2 mi (0.3 km) west of Dingit Corner, 2.4 mi (3.9 km) downstream from Blackwater Dam, 2.5 mi (4.0 km) southeast of Webster, and 6.5 mi (10.5 km) upstream from mouth.

DRAINAGE AREA.--129 mi^2 (334 km^2).

PERIOD OF RECORD.--Discharge: May 1918 to September 1920, February 1927 to current year. Published as "near Contoocook" 1918-20, 1927-35. Records published for both sites October 1934 to September 1935.
Water-quality records: Water year 1957.

REVISED RECORDS.--WSP 696: Drainage area. WSP 821: 1936(M). WSP 851: 1936. WSP 867: 1936 (flood-report data). WSP 1231: 1919-20, 1927, 1928(M), 1929-32, 1933-34(M), 1936 (calendar-year summaries).

GAGE.--Water-stage recorder. Altitude of gage is 430 ft (131 m), from topographic map. Prior to Oct. 1, 1935, chain gage at site 5 mi (8 km) downstream at different datum.

REMARKS.--Records good except those for winter period, which are fair. High flow regulated by Blackwater Reservoir since 1941 (Reservoirs in Merrimack River basin). Some regulation at low flow prior to 1933 by mill above station. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--54 years, 213 ft^3/s (6.032 m^3/s), 22.42 in/yr (570 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft^3/s (312 m^3/s) Mar. 19, 1936, gage height, 11.78 ft (3.591 m), from floodmarks, from rating curve extended above 6,700 ft^3/s (190 m^3/s) on basis of slope-area and critical-depth measurements of peak flow; minimum, 3 ft^3/s (0.085 m^3/s) Sept. 17, 1941; minimum daily, 7.6 ft^3/s (0.22 m^3/s) Sept. 29, 1964. Maximum discharge since construction of Blackwater Reservoir in 1941, 2,390 ft^3/s (67.7 m^3/s) Apr. 16, 1951, Apr. 10, 1952, gage height, 7.18 ft (2.188 m).
Maximum stage since at least 1733, that of Mar. 19, 1936.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,990 ft^3/s (56.4 m^3/s) Mar. 28, gage height, 6.79 ft (2.070 m); minimum, 20 ft^3/s (0.57 m^3/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	36	39	40	66	135	750	1080	685	62	64	58
2	24	34	38	59	64	130	760	742	559	153	61	52
3	27	34	34	155	63	125	945	494	422	355	57	49
4	28	32	39	373	62	120	926	420	343	294	55	46
5	35	31	40	432	61	120	957	431	282	174	54	43
6	46	30	42	289	59	176	996	415	248	127	50	44
7	59	30	44	201	58	434	781	354	232	103	45	59
8	76	31	48	183	57	843	639	308	210	91	41	82
9	74	32	59	160	56	1210	551	280	187	79	38	93
10	65	33	71	130	55	1200	519	257	172	69	37	78
11	57	34	76	120	55	1030	493	235	159	61	40	64
12	51	35	88	110	55	801	475	212	151	56	48	54
13	46	34	86	100	54	703	489	195	146	52	68	48
14	47	32	74	95	54	597	503	187	138	49	100	45
15	57	31	64	90	54	520	517	189	126	48	118	48
16	72	30	58	85	53	480	520	186	115	55	100	47
17	73	30	56	80	53	428	505	171	104	68	82	45
18	65	35	52	78	52	377	497	158	93	73	71	45
19	59	45	47	76	51	335	497	152	86	74	65	45
20	54	51	45	74	50	327	497	150	80	75	60	43
21	49	54	44	74	50	365	496	168	74	70	57	40
22	45	53	43	73	50	469	500	170	69	63	54	52
23	42	49	43	72	51	669	510	159	64	57	51	56
24	40	48	42	72	58	961	509	209	60	53	47	57
25	37	45	42	82	70	1190	518	716	57	51	44	60
26	36	35	42	78	90	1310	493	1410	55	57	41	56
27	38	42	42	76	110	1670	503	1590	53	129	41	50
28	38	42	41	74	130	1900	808	1460	51	123	45	48
29	38	40	41	70	---	1780	1100	936	52	100	50	50
30	37	39	41	68	---	1270	1160	712	55	81	68	125
31	37	---	41	67	---	800	---	762	---	72	63	---
TOTAL	1472	1127	1562	3736	1741	22475	19414	14908	5128	2974	1815	1682
MEAN	47.5	37.6	50.4	121	62.2	725	647	481	171	95.9	58.5	56.1
MAX	76	54	88	432	130	1900	1160	1590	685	355	118	125
MIN	20	30	34	40	50	120	475	150	51	48	37	40
MEAN†	47.5	37.6	50.5	121	62.4	728	683	448	165	96.0	58.6	56.0
CFSM†	.37	.29	.39	.94	.48	5.64	5.29	3.47	1.28	.74	.45	.43
IN.†	.43	.33	.45	1.08	.50	6.51	5.91	4.00	1.43	.86	.52	.48

CAL YR 1978 TOTAL 80658 MEAN 221 MAX 1410 MIN 20 MEAN† 221 CFSM† 1.71 IN† 23.26
WTR YR 1979 TOTAL 78034 MEAN 214 MAX 1900 MIN 20 MEAN† 214 CFSM† 1.67 IN† 22.50

† Adjusted for change in contents in Blackwater Reservoir.

01088400 MERRIMACK RIVER AT CONCORD, NH
(National stream-quality accounting network station)

LOCATION.--Lat 43°12'32", long 71°31'51", Merrimack County, Hydrologic Unit 01070002, on downstream side of bridge on State Highway 4 in Concord.

PERIOD OF RECORD.--April to September 1979.

WATER-QUALITY DATA, APRIL TO SEPTEMBER 1979

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)
APR 09...	0	0	0	0	0	1	0	--	10	0
JUL 25...	3	2	0	0	--	0	0	1	30	20

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
APR 09...	20	2	1	1	2	0	3	220	160	60
JUL 25...	10	0	0	1	3	0	3	380	240	140

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)
APR 09...	6	0	--	50	20	30	<.5	.0	<.5
JUL 25...	3	3	0	30	10	20	<.5	.0	<.5

DATE	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
APR 09...	0	0	0	0	0	0	30	20	10
JUL 25...	0	0	0	0	0	0	10	0	10

DATE	GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L)
APR 09...	<.3	<.5	<.4	1.5	<.4	1.5	<.4	.04	.05

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

01088400 MERRIMACK RIVER AT CONCORD, NH--Continued

WATER-QUALITY DATA, APRIL TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
APR 09...	1030	9760	47	6.2	3.5	2.0	13.6	102	270	99
MAY 07...	0945	8280	41	6.2	10.5	1.0	11.0	98	150	K16
JUN 18...	1300	1900	63	6.8	23.3	1.0	8.0	93	K460	92
JUL 25...	1100	965	72	6.7	27.0	1.0	7.4	92	3000	190
AUG 15...	1120	2200	73	6.7	19.0	2.0	8.3	89	K850	42
SEP 26...	1250	2270	65	6.8	16.5	1.0	9.6	98	400	46

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
APR 09...	10	3	3.1	.6	4.8	.5	7	--	5.0	6.8
MAY 07...	10	7	3.1	.5	4.2	.5	3	--	6.5	5.9
JUN 18...	14	9	4.1	.8	7.1	.7	5	1.5	5.5	10
JUL 25...	14	6	4.1	.8	6.8	.8	8	3.1	7.0	11
AUG 15...	12	2	3.7	.6	9.2	.9	10	3.9	6.5	11
SEP 26...	0	0	--	--	--	--	8	2.5	7.0	10

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)
APR 09...	.1	4.6	36	30	.11	.02	.11	.13	.00	.26
MAY 07...	.1	4.3	34	27	.09	.01	.18	.19	.00	.28
JUN 18...	.1	5.7	50	37	.15	.03	.13	.16	.00	.33
JUL 25...	.2	4.0	52	40	.13	.02	.33	.35	.10	.25
AUG 15...	.2	3.7	50	42	.12	.02	.17	.19	.00	.33
SEP 26...	.1	--	37	23	.14	.03	.41	.44	.04	.40

DATE	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
APR 09...	.24	.02	.01	--	.3	4.1	2	53	100
MAY 07...	.28	.02	.00	3.6	--	--	11	246	76
JUN 18...	.31	.02	.01	3.0	--	--	10	51	100
JUL 25...	.48	.02	.01	--	.1	4.5	1	2.6	100
AUG 15...	.31	.02	.01	3.8	--	--	1	5.9	100
SEP 26...	.58	.02	.02	3.5	--	--	1	6.1	100

K, NON-IDEAL COLONY COUNT.

01088400 MERRIMACK RIVER AT CONCORD, NH--Continued

QUALITATIVE AND QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, MAY 1979 TO SEPTEMBER 1979--Continued

PHYTOPLANKTON

DATE	MAY 7,79	JUN 18,79	JUL 25,79	AUG 15,79	SEP 26,79
TIME	0945	1300	1100	1120	1250
TOTAL CELLS/ML	690	710	410	2500	39
DIVERSITY: DIVISION	0.3	1.6	1.8	0.9	1.6
.CLASS	0.3	1.7	1.8	0.9	1.6
..ORDER	0.4	2.2	1.8	1.1	1.6
...FAMILY	0.4	3.0	2.0	2.0	1.6
....GENUS	0.4	3.1	2.3	2.4	1.6

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...MICRACTINIACEAE										
....GOLENKINIA	--	-	--	-	--	-	52	2	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	29	4	13	2	13	3	90	4	13#	33
....DICTYOSPHAERIUM	--	-	--	-	--	-	460#	19	--	-
....SELENASTRUM	--	-	--	-	--	-	13	1	--	-
....TETRAEDRON	--	-	--	-	--	-	13	1	--	-
....WESTELLA	--	-	52	7	--	-	--	-	--	-
...SCENEDESMACEAE										
....CRUCIGENIA	--	-	--	-	51	13	1200#	48	--	-
....SCENEDESMUS	--	-	100	15	100#	25	100	4	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	77	11	--	-	52	2	--	-
...VOLVOCACEAE										
....GONIUM	--	-	130#	18	--	-	--	-	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....COSMARIUM	14	2	--	-	--	-	--	-	--	-
....PLEUROTAENIUM	--	-	--	-	--	-	13	1	--	-
....SPONDYLOSIUM	--	-	--	-	--	-	13	1	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	--	-	130#	31	77	3	--	-
....MELOSIRA	--	-	--	-	--	-	26	1	--	-
..PENNALES										
...FRAGILARIACEAE										
....ASTERIONELLA	650#	94	--	-	--	-	--	-	--	-
....FRAGILARIA	--	-	13	2	--	-	--	-	--	-
....SYNEDRA	--	-	13	2	--	-	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	--	-	13	2	--	-	--	-	13#	33
.XANTHOPHYCEAE										
..HETEROCOCCALES										
...CHLOROTHECIACEAE										
....OPHIOCYTIUM	--	-	13	2	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE										
..CRYPTOMONADALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	90	13	13	3	--	-	13#	33
...CRYPTOMONADACEAE										
....CRYPTOMONAS	--	-	130#	18	13	3	39	2	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	65	9	90#	22	340	14	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

01089000 SOUCOOK RIVER NEAR CONCORD, NH

LOCATION.--Lat 43°14'22", long 71°27'44", Merrimack County, Hydrologic Unit 01070002, on left bank 500 ft (150 m) upstream from U.S. Highway 4, 0.9 mi (1.4 km) upstream from Cemetery Brook, and 4.4 mi (7.1 km) northeast of State Capitol at Concord.

DRAINAGE AREA.--76.8 mi^2 (198.9 km^2).

PERIOD OF RECORD.--Discharge: October 1951 to current year.
Water-quality records: Water years 1967-74.

REVISED RECORDS.--WSP 1331: 1952(M).

GAGE.--Water-stage recorder. Altitude of gage is 290 ft (88 m), from topographic map.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--28 years, 111 ft^3/s (3.144 m^3/s), 19.63 in/yr (499 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,700 ft^3/s (105 m^3/s) Mar. 14, 1977, gage height, 14.50 ft (4.420 m); minimum, 1.5 ft^3/s (0.042 m^3/s) Aug. 7, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft^3/s (20 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 8	0115	*1820	51.5	11.47	3.496	May 26	0330	760	21.5	8.99	2.740

Minimum discharge, 5.0 ft^3/s (0.14 m^3/s) Aug. 27.

DISCHARGE, STREAM (CUBIC FEET PER SECOND), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	10	12	20	100	171	250	193	296	38	22	9.8
2	11	9.5	12	35	93	158	270	163	219	121	25	7.4
3	9.8	8.9	11	136	85	147	320	142	177	81	27	6.5
4	9.8	8.5	11	138	78	133	320	178	147	58	23	6.5
5	11	8.2	11	95	75	160	310	178	125	50	17	6.2
6	14	8.2	12	81	71	380	290	150	126	43	12	8.2
7	16	7.8	13	73	65	1220	270	130	105	37	10	15
8	13	8.0	13	118	60	1600	240	119	89	33	8.9	17
9	11	8.0	20	218	58	1100	230	97	83	31	8.7	16
10	10	7.8	26	183	54	834	270	103	77	30	10	13
11	9.3	7.8	22	132	52	858	280	92	70	28	12	12
12	9.1	7.4	21	93	48	740	287	84	64	27	14	11
13	8.5	7.3	19	78	45	600	279	81	59	26	27	10
14	8.7	7.3	18	70	43	500	271	83	54	25	31	9.8
15	10	7.1	16	60	40	450	273	85	48	24	21	9.6
16	11	6.9	15	55	38	400	258	81	44	27	15	9.2
17	11	6.7	15	50	36	350	254	72	37	77	12	8.8
18	10	7.6	15	46	34	300	230	65	35	77	9.8	8.4
19	9.5	9.8	13	44	33	290	211	62	33	57	8.9	8.1
20	9.5	9.8	14	40	32	300	199	62	31	46	9.3	7.8
21	9.1	9.3	14	50	35	350	185	64	27	37	9.1	7.6
22	9.1	9.1	15	60	40	430	173	61	25	31	8.0	32
23	8.5	9.1	14	65	48	450	165	60	23	26	6.7	27
24	8.2	11	14	68	75	460	152	121	21	23	6.0	24
25	8.0	16	15	77	171	480	141	506	20	26	5.7	22
26	8.7	15	16	125	213	520	128	655	18	26	5.4	20
27	13	14	17	133	225	450	173	370	16	33	5.5	18
28	14	13	17	133	198	400	346	258	15	34	16	17
29	13	12	16	128	---	300	287	439	15	32	40	22
30	12	11	14	125	---	260	232	356	22	27	120	32
31	11	---	13	113	---	250	---	375	---	23	25	---
TOTAL	328.8	282.1	474	2842	2145	15041	7294	5485	2121	1254	571.0	421.9
MEAN	10.6	9.40	15.3	91.7	76.6	485	243	177	70.7	40.5	18.4	14.1
MAX	16	16	26	218	225	1600	346	655	296	121	120	32
MIN	8.0	6.7	11	20	32	133	128	60	15	23	5.4	6.2
CFSM	.14	.12	.20	1.19	1.00	6.32	3.16	2.31	.92	.53	.24	.18
IN.	.16	.14	.23	1.38	1.04	7.29	3.53	2.66	1.03	.61	.28	.20

CAL YR 1978 TOTAL 33630.8 MEAN 92.1 MAX 926 MIN 5.4 CFSM 1.20 IN 16.29
WTR YR 1979 TOTAL 38259.8 MEAN 105 MAX 1600 MIN 5.4 CFSM 1.37 IN 18.53

01090800 PISCATAQUOG RIVER BELOW EVERETT DAM, NEAR EAST WEARE, NH

LOCATION.--Lat 43°05'29", long 71°39'36", Hillsborough County, Hydrologic Unit 01070002, on right bank 500 ft (150 m) downstream from Everett Dam and 1.4 mi (2.3 km) southeast of East Weare.

DRAINAGE AREA.--63.1 mi^2 (163.4 km^2).

PERIOD OF RECORD.--March 1963 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 320 ft (98 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record Mar. 17 to Apr. 16, which are fair. Flow regulated by Everett Lake (Reservoirs in Merrimack River basin). Diversion from Hopkinton Lake on Contoocook River to Everett Lake during periods of high flow in the spring of 1968, 1969, 1977 and 1979. Occasional regulation by small reservoirs upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--16 years, 95.1 ft^3/s (2.693 m^3/s), 20.47 in/yr (520 mm/yr), adjusted for storage and diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,530 ft^3/s (43.3 m^3/s) May 1, 1969, gage height, 8.73 ft (2.661 m); no flow for part of Aug. 27, Nov. 18, 1964, Oct. 22. 1968, Oct. 4, 1978, caused by unusual regulation; minimum daily discharge, 0.39 ft^3/s (0.011 m^3/s) Sept. 6, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1490 ft^3/s (42.2 m^3/s) Mar. 13, gage height, 8.68 ft (2.64 m); minimum daily, 2.0 ft^3/s (0.057 m^3/s) Oct. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	68	14	21	81	96	420	408	561	18	29	46
2	2.3	61	15	30	72	83	390	389	290	23	40	36
3	2.2	78	15	78	67	81	440	337	244	21	48	34
4	2.0	64	15	96	63	80	410	218	161	18	40	33
5	3.5	49	16	96	58	90	300	179	130	15	30	27
6	5.5	46	30	96	49	73	460	151	139	14	24	29
7	8.5	83	19	94	47	32	480	133	128	13	18	52
8	7.3	75	11	92	47	124	470	118	107	12	15	52
9	6.4	61	17	105	47	337	440	111	94	11	14	42
10	5.8	48	27	128	44	531	400	99	86	11	11	33
11	5.5	40	27	133	39	605	300	70	75	10	12	27
12	5.2	34	27	92	36	933	230	56	68	11	16	21
13	7.3	29	27	73	34	1340	200	54	60	9.7	47	18
14	13	26	26	73	49	1330	200	60	52	9.3	64	16
15	17	24	23	73	48	1110	200	63	46	9.3	53	17
16	19	21	21	72	42	823	260	52	42	10	38	16
17	35	20	21	54	41	430	244	44	39	30	29	15
18	31	23	29	48	40	320	230	38	35	38	24	15
19	27	23	21	48	40	320	212	36	30	52	25	14
20	26	22	11	47	13	385	187	40	27	47	27	13
21	24	20	15	54	18	400	181	54	24	34	26	13
22	23	19	16	64	9.7	425	163	52	22	27	24	17
23	21	18	16	57	3.1	425	153	43	21	20	23	35
24	20	19	16	47	16	450	139	90	21	18	21	39
25	18	19	17	73	35	260	139	83	18	20	19	32
26	17	18	17	97	54	235	126	171	17	21	17	27
27	20	13	17	92	65	825	153	494	15	44	17	21
28	21	7.7	17	90	86	1140	189	781	15	52	32	20
29	21	27	17	88	---	1040	198	671	15	58	29	23
30	24	23	17	90	---	610	348	750	15	47	44	29
31	85	---	22	88	---	450	---	823	---	34	53	---
TOTAL	525.9	1078.7	599	2389	1243.8	15383	8262	6668	2597	757.3	909	812
MEAN	17.0	36.0	19.3	77.1	44.4	496	275	215	86.6	24.4	29.3	27.1
MAX	85	83	30	133	86	1340	480	823	561	58	64	52
MIN	2.0	7.7	11	21	3.1	32	126	36	15	9.3	11	13
MEAN†	19.1	34.2	20.0	78.2	46.5	496	292	215	66.3	24.8	29.5	26.6
CFSM†	.303	.542	.317	1.24	.737	7.86	4.63	3.41	1.05	.393	.468	.422
IN.†	.35	.60	.36	1.43	.77	9.07	5.17	3.93	1.72	.45	.54	.47

CAL YR 1978 TOTAL 29285.1 MEAN 80.2 MAX 495 MIN 2.0 MEAN† 80.3 CFSM† 1.27 IN† 17.27
WTR YR 1979 TOTAL 41224.7 MEAN 113 MAX 1340 MIN 2.0 MEAN† 113. CFSM† 1.79 IN† 24.32

† Adjusted for change in contents in Everett Lake (adjusted for diversion from Hopkinton Lake in March).

01092000 MERRIMACK RIVER NEAR GOFFS FALLS, BELOW MANCHESTER, NH

LOCATION.--Lat 42°56'54", long 71°27'52", Hillsborough County, Hydrologic Unit 01070002, on right bank 600 ft (200 m) upstream from bridge on Interstate Highway 193, 0.8 mi (1.3 km) downstream from Bowman Brook, 1.3 mi (2.1 km) north of Goffs Falls, and 2.3 mi (3.7 km) downstream from Piscataquog River.

DRAINAGE AREA.--3,092 mi² (8,008 km²).

PERIOD OF RECORD.--Discharge: October 1936 to current year. October 1936 monthly discharge only, published in WSP 1301.

Water-quality records: Water years 1952-53, 1957, 1971.

REVISED RECORDS.--WSP 1231: 1937. WSP 1271: 1937(M, m).

GAGE.--Water-stage recorder. Datum of gage is 109.27 ft (33.305 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for periods of no gage-height record, Oct. 1-16, Dec. 10 to Jan. 9, which are fair. Flow regulated by powerplants, by Franklin Falls Reservoir since 1942, and by Squam, Newfound, Winnipesaukee, Winnisquam, and other lakes and reservoirs upstream (Reservoirs in Merrimack River basin). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--43 years, 5,275 ft³/s (149.4 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 102,500 ft³/s (2,900 m³/s) Sept. 23, 1938, gage height, 25.87 ft (7.885 m), from rating curve extended above 48,000 ft³/s (1,400 m³/s) on basis of computations of flow over dam at gage heights 25.87 ft (7.885 m) and 35.19 ft (10.726 m); minimum daily, 98 ft³/s (2.78 m³/s) Oct. 11, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1722, 150,000 ft³/s (4,250 m³/s) Mar. 20, 1936, gage height, 35.19 ft (10.726 m), from floodmarks, from rating curve extended above 48,000 ft³/s (1,400 m³/s) by method explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 22,000 ft³/s (620 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 9	0130	29800	844	10.62	3.237
Mar. 26	2230	*36200	1025	11.95	3.642
Apr. 29	1330	27200	770	10.10	3.078
May 27	0445	26900	762	10.03	3.057

Minimum daily discharge, 660 ft³/s (18.7 m³/s) Oct. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	880	1370	1190	1400	3800	4690	16300	18900	17900	1290	1520	1600
2	830	1260	1060	2300	4200	4390	17000	15100	14900	2950	1270	1630
3	1060	1380	959	4000	3600	4340	19400	12300	11900	2760	1630	1870
4	680	1590	1370	9200	3500	4090	19600	11200	10100	2910	1560	2090
5	660	1310	1230	10000	3300	4480	18100	12100	8670	2620	1380	2030
6	1300	1380	1570	7000	2900	6980	17900	11800	7840	1920	1400	2710
7	740	1000	1140	6000	2900	15400	16600	9850	7260	1750	1280	2640
8	1220	1390	1460	5200	3070	25400	14500	8370	6990	1360	1130	3140
9	1410	1650	1480	5600	2820	28300	12900	7140	6240	1420	1080	3400
10	980	1380	2100	6200	2830	25500	12000	6380	5760	1360	1110	2630
11	1100	1770	2300	5340	2740	23200	11400	7220	5590	1230	976	3240
12	840	812	2100	4790	2630	20900	11000	6750	5240	1530	1170	2160
13	1100	1210	2200	3890	2230	19400	10900	5880	4100	897	2630	1900
14	1600	1780	1500	3400	2290	18100	11000	5090	3620	772	2470	1970
15	1200	1150	1520	3200	2290	17700	11800	5190	3020	987	2110	1500
16	1250	1100	1220	3310	2210	17700	11900	5250	2650	1490	2120	2100
17	1350	1120	1300	3290	2330	16300	10900	4720	2040	1320	1920	1980
18	1410	958	1900	2930	1950	14600	10600	4140	2050	1780	1150	2700
19	1470	1390	1400	3360	2290	13700	10400	3620	1480	3010	1150	1740
20	1360	1720	1200	2640	2150	13300	9880	3480	1820	1310	1250	1790
21	1220	2080	1400	3300	2080	13200	9600	3600	1630	1710	1420	953
22	889	1660	1350	3510	2160	15000	9370	3480	1590	1210	1550	1140
23	1480	1230	1300	3180	2120	18700	9800	3690	1570	1220	1650	1620
24	1030	1270	1150	3240	2590	22200	9430	4410	1520	1040	1600	1690
25	1060	1330	1550	4170	3310	27100	10300	12400	1870	1210	1460	1870
26	1260	1580	1350	4640	3600	33800	10500	24300	1190	1220	1140	1550
27	1350	1220	1400	4200	4150	35000	11600	26100	1350	1380	1840	1760
28	1450	969	1320	4070	4760	30000	19700	22300	1560	1670	1510	1700
29	1600	1060	1390	4230	---	25000	26500	20200	1210	1690	1390	1550
30	1340	1180	1410	4260	---	20000	24300	20600	1210	1470	1030	1710
31	1430	---	1380	4260	---	17000	---	20600	---	1590	1070	---
TOTAL	36469	40219	45199	136110	80800	555470	415180	326160	143870	50076	46766	60363
MEAN	1176	1341	1458	4391	2886	17920	13840	10520	4796	1615	1509	2012
MAX	1600	2080	2300	10000	4760	35000	26500	26100	17900	3010	2630	3400
MIN	660	812	959	1400	1950	4090	9370	3480	1190	772	976	953

CAL YR 1978 TOTAL 1833801 MEAN 5024 MAX 23900 MIN 450
WTR YR 1979 TOTAL 1936682 MEAN 5306 MAX 35000 MIN 660

01093800 STONY BROOK TRIBUTARY NEAR TEMPLE, NH

LOCATION.--Lat 42°51'36", long 71°50'00", Hillsborough County, Hydrologic Unit 01070002, on left bank 150 ft (45 m) downstream from highway bridge, 2.9 mi (4.7 km) north of Temple, and 5.5 mi (8.8 km) upstream from mouth.

DRAINAGE AREA.--3.60 mi² (9.32 km²).

PERIOD OF RECORD.--May 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 920 ft (280 m), from topographic map.

REMARKS.--Records fair except those for winter period, which are poor. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--16 years, 6.85 ft³/s (0.194 m³/s), 25.84 in/yr (656 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 336 ft³/s (9.52 m³/s) Mar. 13, 1977, gage height, 7.13 ft (2.173 m), from rating curve extended above 90 ft³/s (2.6 m³/s); maximum gage height, 7.81 ft (2.380 m) Feb. 3, 1970, Dec. 21, 1973, backwater from ice; no flow for part of Sept. 26, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 110 ft³/s (3.1 m³/s) and maximums (*):

Date	Time	Discharge		Gage height		Date	Time	Discharge		Gage height	
		(ft³/s)	(m³/s)	(ft)	(m)			(ft³/s)	(m³/s)	(ft)	(m)
Mar. 6	1430	ice jam		*6.74	2.054	May 25	1045	*115	3.257	5.77	1.759

Minimum discharge, 0.22 ft³/s (0.006 m³/s) Aug. 8-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.30	.40	.93	10	3.1	4.5	18	14	13	2.8	.70	2.0
2	.40	.40	.70	60	2.9	4.2	19	12	11	2.3	2.5	1.3
3	.43	.43	.93	40	2.8	4.1	18	11	9.7	1.6	2.1	2.2
4	.47	.43	1.4	20	2.7	4.5	23	12	7.2	1.1	1.2	1.9
5	.93	.43	2.6	15	2.5	15	20	11	6.7	.87	.70	1.3
6	1.8	.43	1.3	11	2.4	75	20	9.1	6.9	.81	.47	5.1
7	.60	.43	1.0	9.0	2.3	45	20	8.3	5.5	.70	.33	6.8
8	.43	.51	1.4	15	2.2	32	16	7.7	5.1	.60	.27	3.3
9	.43	.56	8.0	12	2.2	25	14	6.7	4.9	.56	.22	2.3
10	.47	.56	4.2	10	2.1	24	12	6.2	4.2	.43	.75	1.8
11	.51	.56	3.4	9.0	2.1	53	12	5.3	3.7	.40	1.1	1.4
12	.47	.56	1.9	8.0	2.0	44	11	4.9	3.5	.75	2.7	1.1
13	.56	.51	1.1	7.0	2.0	34	13	4.7	3.1	.40	10	.98
14	.81	.51	1.0	6.0	1.9	26	16	4.7	2.9	.33	4.4	.91
15	1.1	.51	.81	5.0	1.9	35	15	4.7	2.5	1.1	2.6	1.3
16	.70	.51	.75	8.0	1.8	29	15	4.5	2.1	14	1.8	.88
17	.60	.56	.82	12	1.8	19	14	4.0	1.9	15	1.2	.86
18	.56	1.3	1.1	11	1.8	17	13	3.7	1.6	7.5	1.0	.79
19	.56	.93	.60	10	2.1	13	12	3.7	1.7	5.3	1.6	.76
20	.70	.81	.46	15	2.6	16	11	6.9	1.4	3.2	1.7	.80
21	.70	.81	.56	11	2.3	19	10	7.2	1.2	2.2	1.2	.94
22	.70	.70	.52	8.5	2.1	29	10	5.3	1.1	1.6	.92	7.9
23	.60	.65	.48	7.5	2.0	35	9.4	4.4	1.4	1.2	.75	5.1
24	.60	.87	.46	6.5	4.5	45	8.6	29	1.2	.93	.75	3.0
25	.70	1.1	.46	5.5	10	58	8.0	65	1.1	.93	.91	2.2
26	.65	1.3	.54	5.0	8.0	62	7.5	39	.93	.93	1.3	1.8
27	1.3	.65	.52	4.5	6.0	34	47	23	.81	2.9	.96	1.4
28	.87	.65	.50	4.2	5.0	22	45	18	.81	1.7	1.3	1.3
29	.65	.65	.50	3.8	---	18	25	26	1.4	1.3	1.8	3.0
30	.43	.87	.60	3.5	---	15	18	20	1.1	.93	4.5	2.8
31	.40	---	2.0	3.3	---	18	---	19	---	.75	3.6	---
TOTAL	20.43	19.59	41.54	356.3	85.1	874.3	500.5	401.0	109.65	75.12	55.33	67.22
MEAN	.66	.65	1.34	11.5	3.04	28.2	16.7	12.9	3.66	2.42	1.78	2.24
MAX	1.8	1.3	8.0	60	10	75	47	65	13	15	10	7.9
MIN	.30	.40	.46	3.3	1.8	4.1	7.5	3.7	.81	.33	.22	.76
CFSM	.18	.18	.37	3.19	.84	7.83	4.64	3.58	1.02	.67	.49	.62
IN.	.21	.20	.43	3.68	.88	9.03	5.17	4.14	1.13	.78	.57	.69

CAL YR 1978 TOTAL 2085.08 MEAN 5.71 MAX 140 MIN .17 CFSM 1.59 IN 21.54
WTR YR 1979 TOTAL 2606.08 MEAN 7.14 MAX 75 MIN .22 CFSM 1.98 IN 26.92

01096507 NASHUA RIVER AT NASHUA, NH

LOCATION.--Lat 42°45'49", long 71°27'19", Hillsborough County, Hydrologic Unit 07020002, on downstream side of Canal Street Bridge in Nashua, and 0.5 mi (0.8 km) upstream from mouth.

PERIOD OF RECORD.--November 1978 to September 1979.

WATER-QUALITY DATA, NOVEMBER 1978 TO SEPTEMBER 1979

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	TUR-BID-ITY (NTU)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)
NOV										
13...	0915	270	6.9	8.0	3	--	20	10.0	84	17
29...	1100	250	6.4	2.0	2	--	20	12.0	87	--
DEC										
11...	1200	260	6.4	1.0	9	--	20	--	--	--
26...	1130	270	6.6	1.5	7	--	30	--	--	--
JAN										
08...	0930	205	6.8	.0	10	--	20	11.4	78	--
29...	1000	105	6.8	.0	4	--	10	12.0	82	--
FEB										
26...	1200	104	6.3	.0	9	--	30	14.2	97	--
MAR										
13...	0940	77	6.1	.5	2	--	30	13.9	96	--
26...	0920	91	6.6	2.0	--	2.0	20	12.3	89	--
APR										
11...	1100	109	6.8	6.0	--	3.0	20	13.2	106	--
23...	0920	128	6.6	10.5	--	4.0	20	10.6	95	--
MAY										
14...	1100	130	6.7	18.0	--	4.0	20	9.3	97	--
29...	1045	93	6.7	15.0	--	4.0	50	10.7	105	--
JUN										
19...	1315	182	7.5	23.5	--	2.0	10	8.6	100	--
27...	0950	193	7.3	20.0	--	2.0	10	9.6	105	--
JUL										
16...	1010	230	7.1	24.0	--	2.0	10	8.0	94	--
31...	0945	192	6.9	26.0	--	3.0	15	8.2	100	--
AUG										
13...	0940	210	6.7	19.0	--	3.0	10	9.2	98	--
27...	0950	180	7.1	21.0	--	3.0	10	9.1	101	--
SEP										
12...	0910	187	6.8	18.0	--	5.0	10	9.8	103	--

01096507 NASHUA RIVER AT NASHUA, NH--Continued

WATER-QUALITY DATA, NOVEMBER 1978 TO SEPTEMBER 1979

DATE	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L)	C.O.D. TOTAL IN BOTTOM MA-TERIAL (MG/KG)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
NOV										
13...	--	--	750	K0	K1	--	--	--	--	--
29...	--	--	--	2000	26	--	--	--	--	--
DEC										
11...	--	--	--	28	18	--	--	--	--	--
26...	79	--	--	K18	650	--	--	34	0	28
JAN										
08...	36	--	--	100	6800	--	--	--	--	--
29...	33	--	--	100	420	--	--	--	--	--
FEB										
26...	22	--	--	K850	2900	--	--	--	--	--
MAR										
13...	--	--	--	K36	2100	--	--	--	--	--
26...	19	--	--	200	790	--	--	10	0	8
APR										
11...	20	--	--	110	280	--	--	--	--	--
23...	18	--	--	K26	K22	--	--	--	--	--
MAY										
14...	20	--	--	80	130	--	--	--	--	--
29...	16	--	--	120	420	--	--	--	--	--
JUN										
19...	24	--	--	450	K40	--	--	--	--	--
27...	22	--	--	44	50	--	--	--	--	--
JUL										
16...	18	13000	--	64	310	0	0	39	0	32
31...	44	--	--	80	22	--	--	--	--	--
AUG										
13...	18	--	--	280	270	--	--	--	--	--
27...	40	--	--	K650	140	--	--	--	--	--
SEP										
12...	18	--	--	K30	860	--	--	--	--	--

DATE	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, SUSP. TOTAL, RESIDUE AT 110 DEG. C (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE IN BOTTOM MA-TERIAL (MG/KG)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
NOV									
13...	--	--	--	8	168	--	1.6	.56	.64
29...	--	--	--	3	159	--	1.3	.88	.62
DEC									
11...	--	--	--	13	156	--	.81	1.0	.80
26...	14	23	49	5	155	--	.82	1.1	.80
JAN									
08...	--	--	--	0	133	--	.48	.52	.88
29...	--	--	--	4	81	--	.28	.33	.77
FEB									
26...	--	--	--	13	86	--	.30	.34	.39
MAR									
13...	--	--	--	10	62	--	.23	.11	.18
26...	4.0	10	15	3	61	--	.26	.40	.59
APR									
11...	--	--	--	5	75	--	.33	.28	.29
23...	--	--	--	3	87	--	.40	.26	.20
MAY									
14...	--	--	--	43	104	--	.59	.23	.87
29...	--	--	--	8	83	--	.31	.15	.54
JUN									
19...	--	--	--	9	109	--	.01	.00	.78
27...	--	--	--	4	136	--	.84	.09	.62
JUL									
16...	5.0	19	33	13	145	17800	.64	.19	.73
31...	--	--	--	7	134	--	.02	.42	.57
AUG									
13...	--	--	--	3	142	--	1.1	.16	1.1
27...	--	--	--	8	113	--	.76	.06	.90
SEP									
12...	--	--	--	--	132	--	1.1	.30	.62

K, NON-IDEAL COLONY COUNT.

01096507 NASHUA RIVER AT NASHUA, NH--Continued

WATER-QUALITY DATA, NOVEMBER 1978 TO SEPTEMBER 1979

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHENOLS (UG/L)	OIL AND GREASE (MG/L)	OIL AND GREASE, TOTAL RECOV. GRAVIMETRIC (MG/L)	CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)
NOV									
13...	1.2	2.8	.17	--	0	--	--	--	30
29...	1.5	2.8	.34	--	0	--	--	--	20
DEC									
11...	1.8	2.6	.30	--	--	0	8.30	.000	<10
26...	1.9	2.7	.29	1	--	0	2.30	.000	20
JAN									
08...	1.4	1.9	.11	--	--	0	.000	.000	10
29...	1.1	1.4	.08	--	--	0	.390	.000	30
FEB									
26...	.73	1.0	.16	--	--	0	2.27	.000	<10
MAR									
13...	.29	.52	.06	--	--	0	.000	.000	20
26...	.99	1.3	.10	2	--	0	3.14	.000	40
APR									
11...	.57	.90	.10	--	--	0	2.17	.000	10
23...	.46	.86	.10	--	--	0	5.52	.000	10
MAY									
14...	1.1	1.7	.17	--	--	0	12.2	.120	20
29...	.69	1.0	.11	--	--	1	1.82	.000	40
JUN									
19...	.78	.79	.12	--	--	0	40.2	.760	10
27...	.71	1.6	.13	--	--	1	36.7	6.17	10
JUL									
16...	.92	1.6	.11	2	--	0	26.8	4.23	20
31...	.99	1.0	.16	--	--	0	15.3	2.86	20
AUG									
13...	1.3	2.4	.15	--	--	0	14.7	.000	10
27...	.96	1.7	.11	--	--	0	23.0	2.76	10
SEP									
12...	.92	2.0	.15	--	--	1	14.0	1.07	20

DATE	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PCB, TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)
DEC												
26...	3	2	8	690	10	170	.1	0	50	.0	.00	.00
MAR												
26...	1	1	10	330	1	110	.5	0	30	.0	.00	.00
JUL												
16...	3	3	5	410	23	180	<.5	0	20	.0	.00	.00

DATE	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)
DEC												
26...	.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	0
MAR												
26...	.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	0
JUL												
16...	.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	0

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

MERRIMACK RIVER BASIN

01096508 MERRIMACK RIVER AT NASHUA, NH

LOCATION.--Lat 42°45'48", long 71°26'36", Hillsborough County, Hydrologic Unit 01070002, on upstream side of Taylor Falls Bridge at east limits of Nashua, 50 ft (15 m) from left bank, and 0.3 mi (0.5 km) downstream from Nashua River.

DRAINAGE AREA.--3,480 mi² (9,013 km²), approximately.

PERIOD OF RECORD.--Water years 1974 to current year.

REMARKS.--When sampling, an attempt is made to exclude Nashua River water.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	TUR-BID-ITY (NTU)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)
OCT										
11...	0830	120	6.5	15.5	2	--	20	8.6	86	19
31...	0900	87	6.6	11.5	1	--	20	9.4	86	13
NOV										
13...	1030	88	7.4	9.0	1	--	20	10.1	87	11
29...	1200	94	6.5	1.0	1	--	15	11.1	78	--
DEC										
11...	1100	100	6.4	1.0	2	--	10	--	--	--
26...	1045	115	6.0	1.0	2	--	20	--	--	--
JAN										
06...	1030	90	6.5	.0	4	--	20	11.4	78	--
29...	1100	100	6.7	.0	3	--	5	13.0	89	--
FEB										
26...	1100	117	6.4	.0	3	--	20	12.7	87	--
MAR										
13...	1045	53	6.0	.5	3	--	20	13.7	95	--
26...	1100	40	5.5	3.0	--	7.0	20	13.6	101	--
APR										
11...	1015	57	6.5	4.5	--	3.0	15	12.8	99	--
23...	1030	53	6.3	10.0	--	2.0	15	11.4	101	--
MAY										
14...	1145	60	6.5	15.5	--	2.0	10	9.3	93	--
29...	1130	43	6.3	14.5	--	2.0	40	10.5	102	--
JUN										
19...	1415	90	7.4	24.0	--	1.0	10	9.2	108	--
27...	1100	93	7.3	21.0	--	1.0	8	9.5	106	--
JUL										
16...	1115	112	6.6	25.0	--	1.0	10	7.2	86	--
31...	1100	97	6.5	27.5	--	2.0	9	7.4	93	--
AUG										
13...	1030	97	6.2	19.0	--	1.0	10	7.5	80	--
27...	1100	93	6.7	23.0	--	2.0	10	7.7	89	--
SEP										
12...	1015	78	6.1	19.0	--	5.0	5	8.5	91	--

01096508 MERRIMACK RIVER AT NASHUA, NH--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	C.O.D. TOTAL IN BOTTOM MATERIAL (MG/KG)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)
OCT 11...	--	--	9200	500	--	--	--	--	--	--
31...	--	--	K2600	100	--	--	--	--	--	--
NOV 13...	--	--	2300	68	K2	--	--	--	--	--
29...	--	--	--	K750	K97	--	--	--	--	--
DEC 11...	--	--	--	450	170	--	--	--	--	--
26...	62	--	--	K34	K8	--	--	20	0	16
JAN 08...	25	--	--	2100	8400	--	--	--	--	--
29...	21	--	--	960	370	--	--	--	--	--
FEB 26...	15	--	--	4100	K1100	--	--	--	--	--
MAR 13...	--	--	--	K720	140	--	--	--	--	--
26...	17	--	--	370	100	--	--	17	0	14
APR 11...	19	--	--	730	260	--	--	--	--	--
23...	16	--	--	480	92	--	--	--	--	--
MAY 14...	31	--	--	K1700	200	--	--	--	--	--
29...	16	--	--	2900	230	--	--	--	--	--
JUN 19...	25	--	--	410	K24	--	--	--	--	--
27...	17	--	--	260	70	--	--	--	--	--
JUL 16...	15	9800	--	290	23	0	0	10	0	8
31...	37	--	--	1800	60	--	--	--	--	1
AUG 13...	15	--	--	820	62	--	--	--	--	--
27...	36	--	--	2300	550	--	--	--	--	--
SEP 12...	11	--	--	2100	80	--	--	--	--	--

DATE	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PCB, TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)
OCT 31...	0	9	5	250	150	30	.0	0	10	--	--	--
DEC 26...	1	0	4	330	6	50	.0	0	40	.0	.00	.00
MAR 26...	1	1	3	900	7	80	.5	0	50	.1	.00	.00
JUL 16...	1	0	4	240	0	50	<.5	0	10	.0	.00	.00

DATE	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)
OCT 31...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 26...	.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	0
MAR 26...	.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	0
JUL 16...	.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	0

K, NON-IDEAL COLONY COUNT.

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

01096508 MERRIMACK RIVER AT NASHUA, NH--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, SUSP. TOTAL, RESIDUE AT 110 DEG. C (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA- TILE IN BOTTOM MA- TERIAL (MG/KG)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
OCT									
11...	--	--	--	11	78	--	.28	.33	.44
31...	--	--	--	3	61	--	.22	.17	.33
NOV									
13...	--	--	--	6	55	--	.24	.21	.26
29...	--	--	--	7	70	--	.22	.29	.18
DEC									
11...	--	--	--	7	68	--	.25	.26	.22
26...	32	9.6	21	3	78	--	.27	.28	.38
JAN									
08...	--	--	--	5	80	--	.32	.40	.90
29...	--	--	--	7	76	--	.20	.26	.41
FEB									
26...	--	--	--	6	84	--	.22	.17	.34
MAR									
13...	--	--	--	16	54	--	.14	.04	.12
26...	86	5.7	6.7	48	52	--	.11	.11	.32
APR									
11...	--	--	--	1	46	--	.11	.05	.18
23...	--	--	--	2	52	--	.09	.04	.11
MAY									
14...	--	--	--	24	50	--	.17	.07	.34
29...	--	--	--	17	54	--	.07	.04	.25
JUN									
19...	--	--	--	11	61	--	.01	.00	.36
27...	--	--	--	4	78	--	.20	.04	.26
JUL									
16...	4.0	8.2	20	6	59	6470	.32	.05	.50
31...	--	--	--	2	82	--	.18	--	--
AUG									
13...	--	--	--	3	22	--	.29	.13	3.3
27...	--	--	--	4	75	--	.38	.10	.49
SEP									
12...	--	--	--	--	62	--	.22	.06	.31

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHENOLS (UG/L)	OIL AND GREASE (MG/L)	OIL AND GREASE, TOTAL RECOV. GRAVI- METRIC (MG/L)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)
OCT									
11...	.77	1.1	.12	--	1	--	--	--	10
31...	.50	.72	.09	--	0	--	--	--	0
NOV									
13...	.47	.71	.07	--	0	--	--	--	10
29...	.47	.69	.11	--	0	--	--	--	20
DEC									
11...	.48	.73	.06	--	--	0	1.72	.000	<10
26...	.66	.93	.10	0	--	0	.220	.000	10
JAN									
08...	1.3	1.6	.16	--	--	0	2.27	.000	<10
29...	.67	.87	.04	--	--	0	.000	.000	<10
FEB									
26...	.51	.73	.08	--	--	0	.000	.000	10
MAR									
13...	.16	.30	.03	--	--	1	.690	.000	10
26...	.43	.54	.05	2	--	0	1.14	.000	20
APR									
11...	.23	.34	.03	--	--	0	.000	.000	10
23...	.15	.24	.03	--	--	0	1.58	.000	10
MAY									
14...	.41	.58	.04	--	--	--	2.00	.000	10
29...	.29	.36	.03	--	--	0	.000	.000	40
JUN									
19...	.36	.37	.08	--	--	0	8.92	.000	10
27...	.30	.50	.19	--	--	1	14.5	.000	20
JUL									
16...	.55	.87	.19	1	--	0	12.5	.000	20
31...	--	--	.12	--	--	0	11.2	.000	40
AUG									
13...	3.4	3.7	.13	--	--	0	9.72	2.01	10
27...	.59	.97	.10	--	--	0	11.1	1.51	10
SEP									
12...	.37	.59	.09	--	--	2	5.57	.000	20

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

Reservoirs in Merrimack River basin

01077500 **NEWFOUND LAKE** on Newfound River, 1.7 mi (2.7 km) north of Bristol, NH, used for recreation and for storage of water for power, has usable capacity of 1,690,000,000 ft^3 (47,900,000 m^3). Records furnished by New Hampshire Water Resources Board.

01078500 **FRANKLIN FALLS RESERVOIR** on Pemigewasset River, 2 mi (3 km) north of Franklin, NH, completed in 1942, used for flood control, has usable capacity of 6,700,000,000 ft^3 (190,000,000 m^3). Records furnished by Corps of Engineers.

01080000 **LAKE WINNIPESAUKEE** on Winnipesaukee River (see station 01080000).

01082500 **EDWARD MACDOWELL RESERVOIR** on Nubanusit Brook, at West Peterborough, NH, 2 mi (3 km) northwest of Peterborough, completed in 1950, used for flood control, has usable capacity of 558,000,000 ft^3 (15,800,000 m^3). Records furnished by Corps of Engineers.

01085400 **HOPKINTON LAKE** on Contoocook River, at West Hopkinton, NH, completed in 1962, used for flood control and recreation, has usable capacity of 3,084,000,000 ft^3 (87,340,000 m^3). Records furnished by Corps of Engineers.

01086500 **BLACKWATER RESERVOIR** on Blackwater River, at Swett's Mills, 1 mi (2 km) south of Webster, NH, completed in 1941, used for flood control, has usable capacity of 2,004,000,000 ft^3 (56,750,000 m^3). Records furnished by Corps of Engineers.

01090700 **EVERETT LAKE** on Piscataquog River, 1.3 mi (2.1 km) southeast of East Weare, NH, completed in 1962, used for flood control and recreation, has usable capacity of 3,768,000,000 ft^3 (106,700,000 m^3). Records furnished by Corps of Engineers.

Hopkinton and Everett Lakes, connected by a canal, are operated as a unit above elevation 400.00 ft (121.920 m). Diversion from Hopkinton Lake to Everett Lake in March 1968, April 1969, and March 1977.

MONTHEND USABLE CONTENTS, IN MILLIONS OF CUBIC FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

	Newfound Lake	Franklin Falls Reservoir	Edward MacDowell Reservoir
Sept. 30, 1978	1098	82.8	4.9
Oct. 31	1106	119.8	6.7
Nov. 30	1106	111.1	13.0
Dec. 31	1128	117.6	13.0
Jan. 31, 1979	1109	122.0	38.6
Feb. 28	1042	104.5	34.8
Mar. 31	1300	227.4	143.3
Apr. 30	1447	560.2	47.5
May 31	1520	308.4	21.6
June 30	1416	111.1	4.3
July 31	1350	119.8	7.3
Aug. 31	1310	111.1	6.1
Sept. 30	1035	119.8	4.9

	Hopkinton Lake	Blackwater Reservoir	Everett Lake
Sept. 30, 1978	8.8	.2	44.7
Oct. 31	1.1	.3	50.4
Nov. 30	0	.5	45.8
Dec. 31	0	.7	47.5
Jan. 31, 1979	23.4	1.0	50.4
Feb. 28	27.7	1.4	55.5
Mar. 31	44.8	9.6	56.0
Apr. 30	98.1	103.8	99.6
May 31	94.3	15.6	99.6
June 30	42.0	.3	47.0
July 31	30.5	.5	48.1
Aug. 31	14.8	.4	48.6
Sept. 30	16.0	.3	47.5

01127880 BIG BROOK NEAR PITTSBURG, NH

LOCATION.--Lat 45°08'06", long 71°12'23", Coos County, Hydrologic Unit 01080101, on left bank 10 ft (3 m) downstream from culvert on U.S. Highway 3, 0.3 mi (0.5 km) upstream from mouth, and 11 mi (18 km) northeast of Pittsburg.

DRAINAGE AREA.--6.36 mi² (16.47 km²).

PERIOD OF RECORD.--December 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,680 ft (512 m), from topographic map.

REMARKS.--Records good except those for winter period and period of no gage-height record, Feb. 15 to Mar. 6, which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--15 years (water years 1965-79), 16.1 ft³/s (0.456 m³/s), 34.38 in/yr (873 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 441 ft³/s (12.5 m³/s) May 3, 1967, gage height, 3.61 ft (1.100 m), from rating curve extended above 110 ft³/s (3.1 m³/s); maximum gage height, 5.02 ft (1.530 m) Dec. 27, 1969, ice jam; minimum discharge, about 0.90 ft³/s (0.025 m³/s) about Aug. 20, 21, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 180 ft³/s (5.1 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 3	0700	225	6.37	3.55	1.082	Mar. 25	2030	225	6.37	3.55	1.082
Mar. 6	-	*350	9.91	a*4.60	1.402	Apr. 26	1830	215	6.09	3.49	1.064

a Ice jam.

Minimum discharge, 1.1 ft³/s (0.031 m³/s) Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	10	6.4	19	4.4	4.7	85	49	36	3.3	1.5	3.1
2	20	9.3	6.0	102	4.4	4.5	57	40	22	3.3	1.5	2.6
3	11	8.5	6.2	216	4.4	4.4	39	30	22	3.8	3.3	3.3
4	8.0	8.0	5.6	100	4.4	4.7	30	47	17	2.8	1.9	3.1
5	8.4	7.4	5.6	60	4.3	5.0	30	41	17	2.2	1.6	2.2
6	10	7.0	5.4	40	4.3	290	26	29	26	2.2	1.5	5.6
7	11	6.8	5.2	25	4.3	150	24	22	16	2.1	1.3	21
8	10	6.5	5.2	20	4.3	70	23	21	13	1.9	1.2	11
9	8.8	6.3	5.0	15	4.3	30	18	21	11	1.8	1.2	6.8
10	7.6	6.2	5.4	10	4.3	22	16	24	10	1.6	1.9	4.9
11	6.8	6.0	5.8	9.0	4.3	19	14	18	10	1.6	3.3	4.3
12	6.4	5.9	5.0	7.5	4.3	17	13	14	48	1.5	2.2	3.8
13	5.6	5.8	4.7	6.5	4.3	23	14	11	35	1.5	1.9	3.1
14	13	13	4.5	6.0	4.3	16	20	11	22	1.5	2.8	9.6
15	27	21	4.4	5.8	4.3	19	22	11	16	1.4	4.6	36
16	18	15	4.3	5.6	4.3	20	25	10	13	1.6	3.3	16
17	13	13	6.0	5.4	4.3	16	24	8.4	10	5.3	2.4	9.6
18	10	18	10	5.2	4.3	13	25	6.8	9.1	5.6	1.9	7.2
19	11	20	7.0	5.2	4.3	11	28	5.6	7.1	5.6	1.7	7.6
20	12	16	5.0	6.0	4.3	9.6	31	5.3	6.0	2.6	1.7	7.2
21	10	14	4.5	7.4	4.4	10	49	4.9	4.9	1.9	1.7	5.6
22	9.6	12	4.4	10	4.4	16	57	4.6	4.3	1.6	1.7	4.9
23	8.4	11	4.2	7.0	8.0	35	83	3.8	4.0	1.5	1.5	4.0
24	8.0	10	4.0	5.6	12	79	100	4.3	4.0	1.4	1.6	3.5
25	7.2	9.0	3.9	5.2	6.0	184	113	22	4.0	1.3	5.6	3.3
26	8.4	8.4	3.9	4.9	5.4	147	162	34	4.0	1.2	5.6	3.0
27	28	7.8	3.9	4.7	4.8	66	179	20	3.6	1.2	9.2	2.9
28	21	7.4	3.9	4.5	4.8	52	156	14	3.5	1.2	9.6	2.8
29	15	7.0	3.9	4.4	---	28	108	18	3.3	1.2	5.6	2.8
30	11	6.6	3.9	4.4	---	25	64	17	3.0	1.2	5.3	2.8
31	11	---	3.9	4.4	---	62	---	29	---	1.2	4.3	---
TOTAL	363.6	302.9	157.1	731.7	136.2	1452.9	1635	596.7	404.8	68.1	94.4	203.6
MEAN	11.7	10.1	5.07	23.6	4.86	46.9	54.5	19.2	13.5	2.20	3.05	6.79
MAX	28	21	10	216	12	290	179	49	48	5.6	9.6	36
MIN	5.6	5.8	3.9	4.4	4.3	4.4	13	3.8	3.0	1.2	1.2	2.2
CFSM	1.84	1.59	.80	3.71	.76	7.37	8.57	3.02	2.12	.35	.48	1.07
IN.	2.13	1.77	.92	4.28	.80	8.50	9.56	3.49	2.37	.40	.55	1.19

CAL YR 1978 TOTAL 5859.5 MEAN 16.1 MAX 238 MIN 1.3 CFSM 2.53 IN 34.27
WTR YR 1979 TOTAL 6147.0 MEAN 16.8 MAX 290 MIN 1.2 CFSM 2.64 IN 35.95

01128500 CONNECTICUT RIVER AT FIRST CONNECTICUT LAKE, NEAR PITTSBURG, NH

LOCATION.--Lat 45°05'14", long 71°17'34", Coos County, Hydrologic Unit 01080101, on right bank 0.2 mi (0.3 km) downstream from dam at First Connecticut Lake, 6 mi (10 km) northeast of Pittsburg, and at mile 392.0 (630.7 km).

DRAINAGE AREA.--83.0 mi^2 (215.0 km^2).

PERIOD OF RECORD.--April 1917 to current year.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1001: 1931-39. WSP 1231: 1921-23(M), 1925-26.

GAGE.--Water-stage recorder. Altitude of gage is 1,560 ft (475 m), from topographic map. Prior to Jan. 1, 1918, discharge computed from flow through gates at dam 0.2 mi (0.3 km) upstream. Jan. 1 to July 28, 1918, nonrecording gage at present site and datum.

REMARKS.--Records good except those for periods of no gage-height record, Oct. 12-31, Jan. 19 to Mar. 7, July 10 to Aug. 16, Aug. 19 to Sept. 25, which are fair. Flow completely regulated by First Connecticut and Second Connecticut Lakes (Reservoirs in Connecticut River basin). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--62 years, 197 ft^3/s (5.579 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,200 ft^3/s (204 m^3/s) June 16, 1943, gage height, 6.25 ft (1.905 m), from rating curve extended above 1,900 ft^3/s (54 m^3/s) on basis of computation of flow over dam at gage height 6.12 ft (1.865 m); maximum gage height, 6.35 ft (1.935 m) May 5, 1925, backwater from logging operations; minimum daily discharge, 3.1 ft^3/s (0.088 m^3/s) Mar. 17, 18, 1929.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,500 ft^3/s (42 m^3/s) Oct. 30, gage height, unknown; minimum daily, 8.7 ft^3/s (0.25 m^3/s) Mar. 9, 10, 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	341	1410	85	83	145	251	9.4	12	151	256	75	251
2	341	985	85	83	145	251	9.4	13	222	180	75	251
3	341	436	85	84	145	251	9.4	20	257	75	75	251
4	341	145	85	85	145	247	9.4	28	295	79	75	251
5	352	145	85	85	145	380	9.4	35	322	79	75	247
6	352	116	85	85	145	150	9.4	26	322	79	75	177
7	351	99	85	86	145	9.0	9.7	33	321	79	90	106
8	349	363	85	87	145	8.9	10	34	321	79	105	106
9	348	514	85	87	145	8.7	9.4	33	321	79	105	106
10	347	508	85	87	145	8.7	9.4	37	321	79	105	106
11	346	496	85	87	146	9.2	9.4	40	320	75	105	106
12	340	489	85	87	145	9.0	9.8	33	212	75	105	106
13	335	206	85	87	145	9.0	10	252	154	75	105	106
14	335	83	83	87	145	9.3	10	530	154	75	105	106
15	335	83	83	87	145	180	10	523	154	75	105	106
16	335	83	83	87	145	324	10	512	154	75	105	106
17	440	83	83	87	145	324	10	509	154	75	101	202
18	675	85	83	87	145	323	10	507	155	75	101	297
19	775	85	83	88	145	501	10	504	155	75	101	297
20	780	85	83	88	205	611	10	502	155	75	101	297
21	765	85	83	88	258	593	10	280	154	75	101	297
22	815	85	83	88	258	613	10	151	190	75	101	295
23	790	85	83	88	258	449	10	151	214	75	101	293
24	780	85	83	88	258	105	11	151	214	75	101	293
25	1010	85	83	88	254	9.4	11	151	243	75	101	293
26	1280	85	83	115	254	9.3	11	151	259	75	101	302
27	1320	85	83	145	254	9.3	11	151	258	75	101	301
28	1310	85	83	145	251	9.7	12	151	257	75	101	211
29	1310	85	83	145	---	8.7	12	151	257	75	101	151
30	1490	85	83	145	---	8.7	12	151	257	75	101	151
31	1470	---	83	145	---	9.4	---	151	---	75	175	---
TOTAL	20499	7349	2599	3004	5006	5689.3	304.1	5973	6923	2639	3074	6168
MEAN	661	245	83.8	96.9	179	184	10.1	193	231	85.1	99.2	206
MAX	1490	1410	85	145	258	613	12	530	322	256	175	302
MIN	335	83	83	83	145	8.7	9.4	12	151	75	75	106

CAL YR 1978 TOTAL 64012.7 MEAN 175 MAX 1490 MIN 4.3
WTR YR 1979 TOTAL 69227.4 MEAN 190 MAX 1490 MIN 8.7

01129200 CONNECTICUT RIVER BELOW INDIAN STREAM, NEAR PITTSBURG, NH

LOCATION.--Lat 45°02'25", long 71°26'37", Coos County, Hydrologic Unit 01080101, on right bank 1,200 ft (350 m) downstream from Indian Stream, 2.5 mi (4.0 km) west of Pittsburg, and at mile 376.5 (605.8 km).

DRAINAGE AREA.--254 mi^2 (658 km^2).

PERIOD OF RECORD.--Discharge: October 1956 to current year.

REVISED RECORDS.--WDR MA-NH-RI-VT-73-1: 1958, 1960(M), 1969(M).

GAGE.--Water-stage recorder. Altitude of gage is 1,150 ft (351 m), from topographic map.

REMARKS.--Records good. Flow regulated by First Connecticut and Second Connecticut Lakes and Lake Francis 3.7 mi (6.0 km) upstream (Reservoirs in Connecticut River basin). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--23 years, 576 ft^3/s (16.31 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,080 ft^3/s (116 m^3/s) Nov. 29, 1959, gage height, 7.07 ft (2.155 m), from rating curve extended above 2,600 ft^3/s (74 m^3/s); minimum daily, 30 ft^3/s (0.85 m^3/s) Aug. 6, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,370 ft^3/s (67.1 m^3/s) Mar. 26, gage height, 5.43 ft (1.655 m); minimum daily, 79 ft^3/s (2.24 m^3/s) May 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	210	1030	351	525	565	1180	1200	475	674	561	156	527
2	251	785	349	407	565	1210	835	445	726	439	159	521
3	255	614	342	787	565	1180	560	375	863	184	169	519
4	233	378	341	749	561	1220	456	457	829	168	160	518
5	227	373	351	587	559	1080	460	508	685	170	159	514
6	232	318	362	479	558	682	392	397	1030	177	159	301
7	243	266	358	450	553	1500	324	299	937	175	225	288
8	247	362	220	433	553	1250	288	265	888	172	271	412
9	242	359	89	414	607	842	263	247	857	169	268	380
10	234	357	240	398	644	751	240	247	847	169	271	368
11	229	354	344	384	640	654	208	205	857	168	275	365
12	227	488	344	381	694	665	193	171	956	165	273	363
13	226	442	344	372	746	973	226	159	724	165	273	360
14	264	361	340	372	793	1220	337	146	777	165	277	376
15	477	598	339	371	901	1240	396	140	687	164	293	829
16	384	627	336	367	943	1240	455	129	634	167	301	294
17	313	583	337	370	933	1220	427	120	609	174	284	323
18	427	632	332	363	924	1170	409	111	591	191	277	403
19	742	729	336	354	982	1290	429	99	578	180	273	391
20	878	542	336	348	1090	1360	395	91	565	169	273	389
21	869	401	333	346	1150	1370	491	88	552	165	273	376
22	860	368	448	354	1140	1450	647	81	657	165	270	369
23	852	365	529	372	971	1190	673	79	749	162	265	363
24	505	374	529	408	571	1080	959	84	770	162	265	359
25	483	373	529	470	751	1810	805	234	635	161	273	355
26	853	359	529	591	1020	2030	1080	416	547	158	300	350
27	1020	350	528	584	1130	871	1410	253	558	159	299	349
28	1110	357	523	578	1110	529	1390	195	574	159	433	349
29	1160	357	523	577	---	391	944	257	565	159	560	347
30	1230	355	520	571	---	348	620	300	559	157	550	345
31	1310	---	518	570	---	737	---	493	---	156	537	---
TOTAL	16793	13857	11900	14332	22219	33733	17512	7566	21680	5855	8821	12003
MEAN	542	462	384	462	794	1088	584	244	723	189	285	400
MAX	1310	1030	529	787	1150	2030	1410	508	1030	561	560	829
MIN	210	266	89	346	553	348	193	79	547	156	156	288

CAL YR 1978 TOTAL 188315 MEAN 516 MAX 2190 MIN 89
WTR YR 1979 TOTAL 186271 MEAN 510 MAX 2030 MIN 79

01129300 HALLS STREAM NEAR EAST HEREFORD, QUEBEC
(International gaging station)

LOCATION.--Lat 45°02'41", long 71°29'54", Compton County, on right bank opposite Alain's farm, 2.5 mi (4.0 km) downstream from East Hereford, and 3.7 mi (6.0 km) upstream from mouth.

DRAINAGE AREA.--85 mi^2 (220 km^2).

PERIOD OF RECORD.--Discharge: October 1962 to current year in reports of Geological Survey. October 1948 to September 1962 available from Water Survey of Canada, Department of the Environment.

GAGE.--Water-stage recorder. Altitude of gage is 1,090 ft (332 m), from topographic map. Prior to Dec. 13, 1962, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter period, which are fair. Several observations of water temperature and specific conductance were made during the year.

COOPERATION.--This station is maintained by Canada under agreement with the United States.

AVERAGE DISCHARGE.--31 years, 170 ft^3/s (4.814 m^3/s), 27.16 in/yr (690 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,500 ft^3/s (127 m^3/s) June 30, 1973, gage height, 13.07 ft (3.984 m); minimum daily, 4 ft^3/s (0.11 m^3/s) Sept. 10, 1960.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1943 reached a discharge of 21,000 ft^3/s (590 m^3/s) by slope-area method at site 0.5 mi (0.8 km) downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,780 ft^3/s (78.7 m^3/s) Mar. 25, gage height, 10.50 ft (3.200 m): minimum daily, 7.5 ft^3/s (0.21 m^3/s) July 30.

DISCHARGE, STREAM (CUBIC FEET PER SECOND), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	59	49	67	82	68	1110	211	502	26	9.3	20
2	40	50	47	210	80	72	688	273	254	30	9.1	16
3	36	45	50	420	79	80	531	216	226	32	11	15
4	25	41	46	400	77	88	446	342	221	27	9.7	15
5	24	37	60	340	75	96	442	320	157	23	9.7	12
6	26	34	63	240	74	200	337	267	174	21	8.0	15
7	41	30	60	170	73	700	256	191	162	18	8.9	92
8	37	33	57	125	72	1210	231	152	164	14	8.6	55
9	30	31	54	105	71	520	207	129	164	12	8.0	33
10	24	29	57	103	70	370	188	113	215	13	8.9	24
11	22	29	57	101	63	270	161	98	413	12	12	21
12	19	28	54	100	67	205	160	85	728	12	12	20
13	17	22	52	98	66	177	262	78	345	10	12	16
14	101	50	49	97	64	175	436	77	181	9.4	12	135
15	449	148	47	96	62	247	481	73	122	9.8	36	506
16	161	86	47	94	60	200	480	64	90	10	35	129
17	94	55	46	92	58	185	423	62	76	12	23	72
18	69	167	47	90	56	169	407	55	66	28	17	48
19	62	183	48	88	56	155	394	49	57	25	14	42
20	60	107	51	86	54	145	366	43	47	16	13	44
21	50	68	55	88	53	144	469	38	39	14	13	32
22	42	53	66	90	52	180	517	39	35	12	13	27
23	38	65	64	94	52	561	582	35	39	11	11	22
24	37	44	61	96	54	1070	623	41	50	10	9.7	21
25	33	44	62	97	54	2410	534	333	48	8.4	14	16
26	31	43	68	97	56	1320	648	394	42	8.0	43	17
27	193	46	70	96	60	614	599	181	31	7.8	39	17
28	169	89	70	92	64	454	546	151	27	8.0	72	17
29	106	71	71	90	---	320	388	365	28	7.6	38	17
30	79	48	72	86	---	352	262	381	27	7.5	29	15
31	67	---	72	84	---	1010	---	786	---	9.6	26	---
TOTAL	2194	1835	1772	4132	1809	13767	13174	5642	4730	464.1	584.9	1531
MEAN	70.8	61.2	57.2	133	64.6	444	439	182	158	15.0	18.9	51.0
MAX	449	183	72	420	82	2410	1110	786	728	32	72	506
MIN	12	22	46	67	52	68	160	35	27	7.5	8.0	12
CFSM	.83	.72	.67	1.57	.76	5.22	5.17	2.14	1.86	.18	.22	.60
IN.	.96	.80	.78	1.81	.79	6.03	5.77	2.47	2.07	.20	.26	.67

CAL YR 1978 TOTAL 55162.1 MEAN 151 MAX 1420 MIN 7.8 CFSM 1.78 IN 24.14
WTR YR 1979 TOTAL 51635.0 MEAN 141 MAX 2410 MIN 7.5 CFSM 1.66 IN 22.60

01129500 CONNECTICUT RIVER AT NORTH STRATFORD, NH

LOCATION.--Lat 44°44'56", long 71°37'50", Coos County, Hydrologic Unit 01080101, on left bank at North Stratford, 400 ft (100 m) downstream from Nulhegan River, and at mile 344.5 (554.3 km).

DRAINAGE AREA.--799 mi² (2,069 km²).

PERIOD OF RECORD.--Discharge: August 1930 to current year.
Water-quality records: Water year 1957.

REVISED RECORDS.--WSP 781: 1934(M). WSP 891: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 880.17 ft (268.276 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period which are fair. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes and Lake Francis (Reservoirs in Connecticut River basin) 36 mi (58 km) upstream.

AVERAGE DISCHARGE.--49 years, 1,586 ft³/s (44.92 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,700 ft³/s (813 m³/s) June 16, 1943, gage height, 14.67 ft (4.471 m) from rating curve extended above 15,000 ft³/s (420 m³/s); maximum gage height, 20.60 ft (6.279 m) Mar. 6, 1979, from floodmark in gage well (ice jam); minimum daily discharge, 108 ft³/s (3.06 m³/s) Sept. 29, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,200 ft³/s (346 m³/s) Mar. 26, gage height, 9.56 ft (2.914 m); maximum gage height, 20.60 ft (6.279 m) Mar. 6, from floodmark in gage well (ice jam); minimum daily discharge, 204 ft³/s (5.78 m³/s) July 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	337	1790	702	760	880	1410	6560	2650	3550	848	265	825
2	624	1510	653	1080	905	1520	5520	2400	2530	942	309	750
3	566	1190	573	3610	910	1370	4200	2080	2760	823	816	761
4	485	1070	680	3680	960	1490	3570	2750	2510	531	516	767
5	475	773	791	2790	850	1500	3340	2830	2050	453	375	711
6	510	710	813	2050	845	1770	2770	2360	2580	408	519	842
7	625	636	766	1690	870	5810	2270	1840	2080	346	380	1770
8	551	567	761	1460	875	7010	1950	1540	1770	363	418	1170
9	503	593	774	1310	885	7060	1820	1430	1620	349	464	872
10	465	636	524	1210	825	4030	1660	1390	1660	360	483	725
11	432	623	562	990	795	3290	1480	1210	1590	342	712	685
12	420	612	887	860	890	2550	1430	1040	3500	343	568	641
13	412	639	985	910	900	2330	1610	977	2960	324	506	576
14	579	768	650	935	915	2820	2420	1010	2010	261	548	664
15	1920	858	530	815	990	3350	2640	890	1640	290	679	3160
16	1690	1120	645	850	975	2810	2850	836	1390	317	716	1900
17	1060	960	600	880	1140	2600	2680	788	1230	375	551	1010
18	819	1510	585	830	1170	2380	2630	707	1170	423	470	907
19	842	1630	665	800	1140	2320	2640	637	1090	668	464	954
20	1170	1210	560	755	1250	2420	2460	563	1000	445	483	953
21	1240	796	555	780	1280	2510	2880	524	931	364	455	812
22	1200	647	695	765	1270	3270	3480	473	885	327	429	743
23	1170	662	785	820	1170	4620	3650	474	1040	303	409	682
24	1170	723	660	1010	970	6350	4730	565	1110	241	408	629
25	832	724	700	995	1240	10200	4390	2410	1100	275	557	580
26	757	605	730	1060	1210	11700	5410	4100	890	308	669	586
27	1560	574	765	1020	1210	7440	6570	2370	829	288	716	539
28	2460	671	675	1090	1270	3770	6540	1780	826	281	983	540
29	2000	743	620	1020	---	2850	5200	2660	816	269	870	540
30	1820	745	735	1030	---	2440	3500	2800	802	257	961	544
31	1760	---	680	970	---	4310	---	4060	---	204	989	---
TOTAL	30454	26295	21306	38825	28590	119300	102850	52144	49919	12328	17688	26838
MEAN	982	877	687	1252	1021	3848	3428	1682	1664	398	571	895
MAX	2460	1790	985	3680	1280	11700	6570	4100	3550	942	989	3160
MIN	337	567	524	755	795	1370	1430	473	802	204	265	539

CAL YR 1978 TOTAL 542314 MEAN 1486 MAX 10800 MIN 326
WTR YR 1979 TOTAL 526537 MEAN 1443 MAX 11700 MIN 204

01130000 UPPER AMMONOOSUC RIVER NEAR GROVETON, NH

LOCATION.--Lat 44°37'30", long 71°28'10", Coos County, Hydrologic Unit 01080101, on left bank 75 ft (23 m) upstream from highway bridge, 0.2 mi (0.3 km) downstream from Nash Stream, and 2.8 mi (4.5 km) northeast of Groveton.

DRAINAGE AREA.--232 mi^2 (601 km^2).

PERIOD OF RECORD.--Discharge: August 1940 to current year.
Water-quality records: Water year 1955.

GAGE.--Water-stage recorder. Altitude of gage is 920 ft (280 m), from topographic map.

REMARKS.--Records fair except those for winter period, period of no gage-height record, Dec. 23 to Mar. 11 and period of shifting control Mar. 12 to Sept. 30, which are poor. Prior to May 21, 1969, some regulation by pond 9 mi (14 km) upstream on Nash Stream. Small diversion upstream for municipal supply of Berlin. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--39 years, 477 ft^3/s (13.51 m^3/s), 27.92 in/yr (709 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,100 ft^3/s (683 m^3/s) May 20, 1969, gage height, 12.01 ft (3.661 m) in gage well, 12.85 ft (3.917 m), from floodmarks, from rating curve extended above 5,600 ft^3/s (160 m^3/s) on basis of contracted-opening measurement of peak flow, caused by failure of dam on Nash Stream; minimum, 32 ft^3/s (0.91 m^3/s) Sept. 14, 1948.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a stage of about 10.6 ft (3.23 m), from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,900 ft^3/s (82 m^3/s) and maximums (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 3	--	3500	99	ice jam		Mar. 26	1[illegible]0	4710	133	6.20	1.890
Mar. 6	--	4600	130	a*10.71	3.264	Apr. 28	0930	*4820	137	6.25	1.905

a Ice jam.

Minimum discharge, 37 ft^3/s (1.05 m^3/s) Aug. 9,10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	163	100	250	160	140	1780	1690	1380	144	58	119
2	120	151	94	2300	155	130	1510	1270	908	315	69	83
3	104	139	88	3000	150	130	1200	982	740	496	98	81
4	90	126	106	400	148	150	1000	1500	665	339	87	76
5	117	120	120	350	145	500	961	1510	617	196	60	63
6	139	120	130	310	140	4000	824	1090	682	154	46	115
7	150	117	120	280	135	4500	706	835	609	130	40	633
8	125	117	128	260	135	2000	641	740	536	112	41	464
9	105	117	170	240	130	960	609	782	488	98	40	297
10	97	114	150	230	130	700	577	908	488	90	51	186
11	96	111	125	225	128	600	536	772	456	83	147	151
12	93	105	120	220	128	580	536	674	552	83	119	126
13	97	102	110	225	125	560	633	641	561	76	98	105
14	163	108	105	230	125	700	761	633	464	67	144	105
15	287	110	100	230	120	1010	835	601	399	60	179	423
16	229	100	99	225	120	800	690	561	345	69	176	357
17	188	96	98	220	119	660	772	528	303	81	115	208
18	167	171	97	220	118	580	761	488	280	183	83	147
19	151	260	96	220	115	530	793	464	232	464	76	158
20	143	202	94	220	115	496	803	440	196	232	105	186
21	135	155	92	230	115	504	940	415	169	126	98	144
22	126	96	90	260	115	690	1130	407	147	85	74	122
23	120	97	90	290	120	1210	1280	369	144	69	51	105
24	120	98	90	230	130	1950	1740	383	169	58	44	92
25	120	100	90	205	210	3650	1830	1230	169	54	172	85
26	126	96	90	195	180	4510	2380	2170	154	51	309	78
27	276	94	90	190	170	2620	3650	1490	137	67	232	74
28	292	96	90	180	150	1380	4550	929	126	65	369	69
29	224	100	90	175	---	982	3610	1130	115	54	214	74
30	197	105	90	170	---	814	2530	1290	112	47	169	76
31	179	---	90	165	---	1370	---	1590	---	43	162	---
TOTAL	4652	3686	3242	12145	3831	39406	40568	28512	12343	4191	3726	5002
MEAN	150	123	105	392	137	1271	1352	920	411	135	120	167
MAX	292	260	170	3000	210	4510	4550	2170	1380	496	369	633
MIN	76	94	88	165	115	130	536	369	112	43	40	63
CFSM	.65	.53	.45	1.69	.59	5.48	5.83	3.97	1.77	.58	.52	.72
IN.	.75	.59	.52	1.95	.61	6.32	6.50	4.57	1.98	.67	.60	.80
(†)	3.55	2.92	2.99	3.69	3.54	3.47	3.90	2.86	2.76	2.87	2.10	2.22

CAL YR 1978 TOTAL 183133 MEAN 502 MAX 5710 MIN 60 CFSM 2.16 IN 29.36
WTR YR 1979 TOTAL 161304 MEAN 442 MAX 4550 MIN 40 CFSM 1.91 IN 25.86

† Diversion, in cubic feet per second, for municipal supply of Berlin; records furnished by city of Berlin.

01131500 CONNECTICUT RIVER NEAR DALTON, NH

LOCATION.--Lat 44°24'36", long 71°43'16", Coos County, Hydrologic Unit 01080101, on left bank 250 ft (76 m) upstream from highway bridge, 1,200 ft (350 m) downstream from dam of Gilman Paper Co., 1.2 mi (1.9 km) downstream from Dalton, and at mile 300.1 (482.9 km).

DRAINAGE AREA.--1,514 mi² (3,921 km²).

PERIOD OF RECORD.--Discharge: March 1927 to current year. Published as "at Waterford, Vt." 1927-35. Records published for both sites January to September 1935.
Water-quality records: Water years 1953, 1971.

REVISED RECORDS.--WSP 891: Drainage area. WSP 1231: 1935. WSP 1301: 1928-35(M).

GAGE.--Water-stage recorder. Datum of gage is 799.89 ft (243.806 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1935, nonrecording gage at bridge 10.5 mi (16.9 km) downstream at mean sea level. Jan. 1, 1935, to June 29, 1937, nonrecording gage at bridge 250 ft (76 m) downstream at present datum. Since June 2, 1961, auxiliary water-stage recorder 10.8 mi (17.4 km) downstream from base gage. July 11, 1956, to June 1, 1961, auxiliary nonrecording gage read hourly at same site.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes, Lake Francis (Reservoirs in Connecticut River basin), and other reservoirs. These reservoirs have a combined usable capacity of about 8,300,000,000 ft³ (240,000,000 m³). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--52 years, 2,916 ft³/s (82.58 m³/s), adjusted to drainage area at present site.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,300 ft³/s (1,370 m³/s) Mar. 20, 1936, gage height, 25.6 ft (7.80 m); minimum daily, 115 ft³/s (3.26 m³/s) Oct. 3, 1937.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,700 ft³/s (558 m³/s) Mar. 27, gage height, 17.67 ft (5.386 m); minimum daily, 388 ft³/s (11.0 m³/s) July 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	530	2290	1090	1060	1300	1650	8880	7730	7110	1160	407	1200
2	595	1920	1050	2080	1350	1900	10400	6020	5720	1280	452	1100
3	1130	1560	945	6960	1360	1650	9840	5110	4690	1760	569	1200
4	868	1300	770	7600	1490	1800	8200	5190	6180	1490	1070	1100
5	875	771	784	5870	1240	2200	7220	6500	3820	1120	840	800
6	847	736	1200	4250	1230	3620	6570	5910	3860	896	621	1300
7	1100	1070	1200	3360	1300	10700	5590	4730	3860	718	666	2000
8	1170	553	1800	2840	1300	14900	4790	3900	3300	718	614	2900
9	784	1020	959	2520	1200	15700	4190	3500	2930	692	582	2000
10	1020	1040	1400	2300	1100	13300	3800	3490	2750	679	653	1300
11	627	1040	1050	1800	1000	9400	3490	3360	2640	608	770	1000
12	647	757	705	1500	1100	6940	3300	2920	2880	575	1020	1000
13	757	1090	1190	1630	1050	5590	3360	2630	4730	582	987	550
14	903	1070	1070	1680	1030	4720	3940	2520	3830	582	847	1000
15	1810	1070	777	1400	1000	5430	4790	2470	3180	478	945	2000
16	2870	1610	1060	1500	980	5910	5300	2160	2540	575	1400	9000
17	2220	1430	945	1550	1430	5130	5350	1900	2030	608	800	2700
18	1480	1600	924	1450	1500	4570	5110	1800	1820	640	647	1600
19	1280	1940	1100	1400	1300	4180	5080	1500	1610	1300	640	1200
20	1500	2320	854	1300	1350	4120	5030	1550	1570	1500	610	1400
21	1500	1690	847	1360	1400	4220	5050	1350	1420	980	760	1450
22	1550	1080	910	1300	1450	5300	5780	1420	1400	731	480	1530
23	1560	757	1040	1400	1600	7390	6230	1300	1320	627	620	750
24	1550	757	833	1780	1900	10700	7260	1120	1440	575	647	800
25	1370	973	924	1630	1700	14600	7920	2510	1460	484	640	830
26	1280	910	1000	1550	1200	18500	8400	7240	1410	484	1100	720
27	2020	718	1080	1600	1200	19200	9950	7000	1250	510	1400	840
28	3700	705	880	1780	1500	14300	12200	4760	1190	510	1350	780
29	3110	840	950	1600	---	8260	12600	4820	1130	458	1400	2100
30	2550	1280	1020	1650	---	6090	10700	6260	1130	465	1300	2600
31	2470	---	900	1500	---	6200	---	6820	---	388	1400	---
TOTAL	45673	35897	31257	71200	36560	238170	200320	119490	84200	24173	26237	48750
MEAN	1473	1197	1008	2297	1306	7683	6677	3855	2807	780	846	1625
MAX	3700	2320	1800	7600	1900	19200	12600	7730	7110	1760	1400	9000
MIN	530	553	705	1060	980	1650	3300	1120	1130	388	407	550

CAL YR 1978 TOTAL 997668 MEAN 2733 MAX 18400 MIN 339
WTR YR 1979 TOTAL 961927 MEAN 2635 MAX 19200 MIN 388

01133000 EAST BRANCH PASSUMPSIC RIVER NEAR EAST HAVEN, VT

LOCATION.--Lat 44°38'02", long 71°53'53", Caledonia County, Hydrologic Unit 01080102, on right bank in Burke, 0.5 mi (0.8 km) upstream from Flower Brook, 2.1 mi (3.4 km) south of East Haven, and 8.4 mi (13.5 km) upstream from mouth.

DRAINAGE AREA.--53.8 mi^2 (139.3 km^2).

PERIOD OF RECORD.--Discharge: July 1939 to October 1945, October 1948 to September 1979 (discontinued). Prior to October 1951, published as Passumpsic River near East Haven.
Water-quality records: Water year 1957.

REVISED RECORDS.--WSP 1141: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 943.88 ft (287.695 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Oct. 1, 1973, at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records poor. No gage-height record Dec. 10. to Mar. 7, Mar. 17 to Apr. 4, and June 4 to July 31.

AVERAGE DISCHARGE.--37 years, 106 ft^3/s (3.002 m^3/s), 26.76 in/yr (680 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,450 ft^3/s (126 m^3/s) June 30, 1973, gage height, 11.45 ft (3.490 m), present datum, from floodmarks in gage well, from rating curve extended above 1,600 ft^3/s (45 m^3/s) on basis of slope-area measurement of peak flow; minimum, 13 ft^3/s (0.37 m^3/s) Sept. 1-5, 1953, Aug. 21, 22, 1975.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in November 1927 reached a stage of about 14.6 ft (4.45 m), present datum, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft^3/s (23 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 7	--	950	27	unknown		Mar. 25	--	*1100	31	unknown	

Minimum discharge not determined; minimum daily, 17 ft^3/s (0.48 m^3/s) July 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	46	30	54	44	37	370	220	186	64	32	60
2	68	42	31	94	43	36	340	180	132	110	172	50
3	40	41	29	300	42	35	400	210	150	105	84	62
4	32	39	30	220	41	60	290	250	140	80	43	74
5	42	38	33	160	40	140	230	230	135	50	55	70
6	65	37	35	120	39	300	202	190	125	40	46	100
7	66	36	38	100	38	750	166	170	110	30	38	250
8	46	35	40	80	38	400	150	150	94	40	38	200
9	37	34	48	68	37	263	141	140	96	42	27	110
10	33	33	64	60	37	190	135	130	94	26	67	74
11	30	33	105	54	36	164	125	120	220	29	54	44
12	35	32	78	52	36	133	129	110	210	30	50	43
13	45	29	42	49	35	124	151	105	150	29	47	36
14	70	43	37	46	34	153	184	100	115	27	45	113
15	150	52	35	44	33	169	181	95	96	26	56	274
16	80	41	35	42	33	272	215	93	78	35	62	115
17	60	36	36	41	32	138	204	86	70	56	58	78
18	50	81	35	39	32	110	195	78	67	70	50	61
19	45	74	37	39	31	100	191	74	66	80	41	89
20	42	51	41	40	31	110	191	70	63	50	42	74
21	38	48	44	42	32	130	227	68	48	29	44	60
22	36	40	45	46	33	170	244	65	43	17	37	54
23	35	34	42	58	35	220	279	60	44	28	32	47
24	36	30	40	56	38	350	299	89	46	24	31	44
25	34	29	42	52	43	900	290	304	42	22	80	41
26	41	30	41	51	41	500	330	279	39	21	92	39
27	133	29	25	50	40	350	410	176	40	24	100	37
28	88	28	41	48	38	280	380	166	34	27	115	35
29	68	28	42	47	---	250	320	297	29	20	100	40
30	55	30	43	46	---	220	270	213	33	23	72	38
31	50	---	41	45	---	270	---	233	---	19	78	---
TOTAL	1677	1179	1305	2243	1032	7324	7239	4751	2795	1273	1888	2412
MEAN	54.1	39.3	42.1	72.4	36.9	236	241	153	93.2	41.1	60.9	80.4
MAX	150	81	105	300	44	900	410	304	220	110	172	274
MIN	27	28	25	39	31	35	125	60	29	17	27	35
CFSM	1.01	.73	.78	1.35	.69	4.39	4.48	2.84	1.73	.76	1.13	1.49
IN.	1.16	.82	.90	1.55	.71	5.06	5.01	3.29	1.93	.88	1.31	1.67

CAL YR 1978 TOTAL 36019 MEAN 98.7 MAX 692 MIN 17 CFSM 1.84 IN 24.90
WTR YR 1979 TOTAL 35118 MEAN 96.2 MAX 900 MIN 17 CFSM 1.79 IN 24.28

01134500 MOOSE RIVER AT VICTORY, VT

LOCATION.--Lat 44°30'42", long 71°50'13", Essex County, Hydrologic Unit 01080102, on right bank at Victory, 2.7 mi (4.3 km) upstream from highway bridge.

DRAINAGE AREA.--75.2 mi² (121.0 km²).

PERIOD OF RECORD.--January 1947 to current year.
Water-quality records: Water year 1957.

REVISED RECORDS.--WSP 1381: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,103.99 ft (336.496 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good except those for winter period and period of no gage-height record Nov. 28 to Jan. 19, Apr. 9 to May 16, July 13 to Sept. 3, which are fair.

AVERAGE DISCHARGE.--32 years, 142 ft³/s (4.021 m³/s), 25.64 in/yr (651 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,340 ft³/s (123 m³/s) July 1, 1973, gage height, 12.04 ft (3.670 m); minimum, 2.6 ft³/s (0.10 m³/s) Aug. 21, 22, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 3	--	1100	31	--	--	Mar. 26	0100	*1620	45.9	8.74	2.664
Mar. 7	1200	1500	42	a*9.84	2.999	Apr. 28	--	1350	38	--	--

a Ice jam.

Minimum discharge, not determined; minimum daily, 10 ft³/s (0.28 m³/s) July 14, 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	59	28	32	45	41	594	400	448	25	15	60
2	51	52	26	80	44	37	586	330	244	78	45	45
3	44	48	28	950	43	35	554	270	211	118	58	36
4	30	44	30	350	42	39	545	430	164	63	64	51
5	45	42	37	150	41	100	466	500	123	37	33	36
6	76	40	48	100	41	640	361	300	139	27	24	58
7	100	38	35	74	40	1300	274	240	100	22	25	488
8	60	38	38	64	39	1100	229	200	81	19	23	259
9	43	37	50	58	39	786	210	180	73	16	25	101
10	34	35	66	54	38	558	205	170	68	14	27	68
11	30	33	50	53	37	407	210	140	64	12	54	57
12	28	32	44	52	37	311	220	130	211	11	51	50
13	27	29	38	52	36	249	240	125	179	11	40	41
14	75	36	35	56	36	216	300	135	105	10	36	36
15	281	61	32	54	35	252	340	125	75	11	50	258
16	152	51	30	53	35	236	370	118	59	20	70	136
17	86	39	28	52	35	194	400	109	50	25	45	78
18	63	88	27	52	34	164	370	89	43	35	32	58
19	54	138	26	53	34	151	360	78	39	130	30	71
20	51	86	26	54	34	146	350	71	33	100	36	77
21	46	50	26	58	35	164	400	67	29	40	38	57
22	42	40	25	66	35	262	450	63	26	25	27	50
23	39	27	25	80	36	452	470	60	25	18	23	42
24	41	28	25	68	37	735	560	88	25	16	21	36
25	39	29	26	60	40	1460	580	335	25	15	23	33
26	42	27	26	56	50	1380	600	606	22	13	200	30
27	180	26	26	54	52	799	800	435	20	14	100	28
28	172	27	27	52	45	478	1200	257	18	13	170	27
29	108	28	27	51	---	326	1100	425	17	12	90	33
30	80	30	28	49	---	255	700	480	17	11	66	37
31	66	---	29	47	---	392	---	507	---	10	90	---
TOTAL	2197	1338	1012	3084	1095	13665	14044	7463	2733	971	1631	2437
MEAN	70.9	44.6	32.6	99.5	39.1	441	468	241	91.1	31.3	52.6	81.2
MAX	281	138	66	950	52	1460	1200	606	448	130	200	488
MIN	12	26	25	32	34	35	205	60	17	10	15	27
CFSM	.94	.59	.43	1.32	.52	5.86	6.22	3.21	1.21	.42	.70	1.08
IN.	1.09	.66	.50	1.53	.54	6.76	6.95	3.69	1.35	.48	.81	1.21

CAL YR 1978 TOTAL 47135.2 MEAN 129 MAX 1330 MIN 8.0 CFSM 1.72 IN 23.32
WTR YR 1979 TOTAL 51670.0 MEAN 142 MAX 1460 MIN 10 CFSM 1.89 IN 25.56

01135000 MOOSE RIVER AT ST. JOHNSBURY, VT

LOCATION.--Lat 44°25'22", long 72°00'02", Caledonia County, Hydrologic Unit 01080102, on left bank at St. Johnsbury 0.5 mi (0.8 km) upstream from mouth.

DRAINAGE AREA.--128 mi² (332 km²).

PERIOD OF RECORD.--Discharge: August 1928 to current year.
Water-quality records: Water year 1955.

REVISED RECORDS.--WSP 1231: 1929-30, 1931-34(M). WSP 1381: Drainage area. WSP 1701: 1959.

GAGE.--Water-stage recorder. Altitude of gage is 585 ft (178 m), from topographic map. Prior to Nov. 16, 1934, nonrecording gage at site 0.2 mi (0.3 km) upstream at different datum.

REMARKS.--Records good except those for winter period and periods of no gage-height record, Oct. 10 to Jan. 9, Mar. 7 to Apr. 4, which are fair.

AVERAGE DISCHARGE.--51 years, 221 ft³/s (6.259 m³/s), 23.45 in/yr (596 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,820 ft³/s (165 m³/s) May 5, 1972, gage height, 4.23 ft (1.289 m); maximum gage height, 8.3 ft (2.53 m) Apr. 30, 1929, from graph based on gage readings, site and datum then in use; minimum discharge, 6.2 ft³/s (0.18 m³/s) Sept. 17, 18, 1948, Aug. 27, 28, 1949.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,700 ft³/s (48 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 3	--	1800	51	--	--	Mar. 7	--	2500	71	--	--
Mar. 6	--	--	--	a*5.94	1.811	Mar. 25	--	*3200	91	--	--

a Ice Jam.

Minimum discharge, 13 ft³/s (0.37 m³/s) July 31, Aug. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	88	49	58	80	73	1050	549	802	40	15	77
2	35	80	45	200	78	66	1000	412	412	90	36	53
3	59	76	49	1600	77	63	980	328	317	152	70	44
4	41	72	54	1000	76	70	940	531	220	104	79	44
5	49	70	62	300	74	200	689	636	180	57	40	48
6	86	68	80	220	73	800	606	467	150	43	29	52
7	128	70	60	150	72	2300	439	328	130	36	30	399
8	81	74	70	130	71	1500	356	267	110	31	29	368
9	53	72	105	120	70	1200	333	245	98	28	30	132
10	45	69	110	110	68	900	307	236	88	26	33	83
11	44	66	90	105	66	660	272	205	90	24	68	66
12	43	64	80	98	65	500	282	169	270	22	64	59
13	42	62	66	100	64	430	301	164	250	20	48	52
14	100	64	61	110	63	390	386	202	170	20	44	58
15	390	66	57	115	62	430	425	185	120	18	57	220
16	150	60	54	110	61	380	475	145	86	20	89	185
17	88	56	50	105	60	340	497	152	74	31	58	104
18	72	70	48	100	60	290	467	128	66	38	39	75
19	68	200	47	98	61	275	446	110	56	176	36	62
20	78	90	46	100	62	290	432	99	50	135	43	86
21	70	64	45	110	63	320	482	89	39	54	45	70
22	64	60	44	120	64	500	567	84	38	35	35	61
23	72	47	44	135	66	900	577	76	37	27	28	53
24	90	48	44	120	68	1500	716	81	36	23	25	47
25	74	49	45	110	78	2500	716	362	35	20	25	43
26	84	47	45	100	100	1800	749	876	30	20	245	40
27	230	45	46	98	88	1100	978	749	27	21	121	38
28	150	47	47	94	78	700	1590	393	24	20	216	37
29	120	48	48	90	---	600	1410	549	22	18	116	41
30	105	50	49	86	---	500	876	802	21	16	79	46
31	96	---	52	84	---	800	---	916	---	14	108	---
TOTAL	2827	2042	1792	6076	1968	22377	19344	10535	4048	1379	1980	2743
MEAN	91.2	68.1	57.8	196	70.3	722	645	340	135	44.5	63.9	91.4
MAX	390	200	110	1600	100	2500	1590	916	802	176	245	399
MIN	20	45	44	58	60	63	272	76	21	14	15	37
CFSM	.71	.53	.45	1.53	.55	5.64	5.04	2.66	1.06	.35	.50	.71
IN.	.82	.59	.52	1.77	.57	6.50	5.62	3.06	1.18	.40	.58	.80

CAL YR 1978 TOTAL 64750 MEAN 177 MAX 1050 MIN 15 CFSM 1.38 IN 18.82
WTR YR 1979 TOTAL 77111 MEAN 211 MAX 2500 MIN 14 CFSM 1.65 IN 22.41

01135500 PASSUMPSIC RIVER AT PASSUMPSIC, VT

LOCATION.--Lat 44°21'56", long 72°02'23", Caledonia County, Hydrologic Unit 01080102, on right bank 0.7 mi (1.1 km) upstream from Water Andric, 1 mi (2 km) downstream from dam and village of Passumpsic, and 4.0 mi (6.4 km) upstream from mouth.

DRAINAGE AREA.--436 mi^2 (1.129 km^2).

PERIOD OF RECORD.--Discharge: October 1928 to current year. Monthly discharge only October 1928, published in WSP 1301.
Water-quality records: Water years 1953, 1967-74 (partial-record station).

REVISED RECORDS.--WSP 781: 1933(M). WSP 871: Drainage area. WSP 1231: 1929, 1930-31(M).

GAGE.--Water-stage recorder. Altitude of gage is 490 ft (149 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Low flow regulated by powerplants upstream.

AVERAGE DISCHARGE.--51 years, 737 ft^3/s (20.87 m^3/s), 22.96 in/yr (583 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,200 ft^3/s (515 m^3/s) July 1, 1973, gage height, 23.49 ft (7.160 m), from rating curve extended above 14,000 ft^3/s (400 m^3/s) on basis of computation of flow over dam at gage height 21.23 ft (6.471 m); minimum daily, 13 ft^3/s (0.37 m^3/s) Sept. 12, 1948.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1780, about 31.5 ft (9.60 m) in November 1927, from information by local residents (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,000 ft^3/s (140 m^3/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
Mar. 7	2015	*8980	254	13.67	4.167	Mar. 25	2015	6530	185	10.94	3.335

Minimum discharge, 65 ft^3/s (1.84 m^3/s) Aug. 1.

DISCHARGE, STREAM (CUBIC FEET PER SECOND), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	293	200	260	300	300	2810	1570	1690	255	65	314
2	204	289	195	1100	270	295	2670	1350	1130	469	174	245
3	282	226	210	2200	260	290	3080	1140	1020	652	528	199
4	184	245	190	1300	250	330	2520	1790	858	499	528	274
5	223	226	195	800	250	900	2260	1790	726	288	265	268
6	326	220	220	620	255	4000	1940	1430	725	230	202	289
7	413	180	240	560	240	8290	1550	1120	619	149	174	1330
8	326	223	250	540	250	6820	1320	942	537	207	149	816
9	286	258	265	480	250	4840	1280	869	477	230	149	477
10	235	229	290	460	240	3860	1190	814	520	140	188	330
11	211	202	250	450	230	3660	1090	744	505	151	272	248
12	194	220	240	450	215	2980	1120	688	1240	151	319	280
13	194	194	225	450	205	2330	1230	643	1050	165	248	209
14	289	159	210	445	205	2600	1480	740	680	141	202	204
15	958	211	200	430	200	3010	1460	712	553	151	202	1330
16	670	351	200	425	205	2190	1760	612	443	126	319	758
17	413	381	205	425	200	2100	1760	581	378	271	232	487
18	330	528	210	425	200	1840	1580	530	366	238	174	371
19	272	755	200	420	195	1530	1520	460	352	458	202	298
20	274	340	190	430	195	1250	1490	452	344	403	149	398
21	259	288	205	440	210	1380	1630	432	267	160	202	342
22	245	120	200	480	230	2150	1870	426	230	141	149	256
23	239	98	200	580	250	2470	1850	381	225	152	161	242
24	230	120	210	450	270	3710	2230	383	238	128	117	235
25	203	170	210	415	330	6040	2070	1700	256	113	174	216
26	262	210	215	390	350	5440	2350	2540	201	122	694	228
27	556	250	200	370	340	3100	2710	1620	206	105	554	212
28	687	200	215	350	315	1990	3430	1210	209	144	627	192
29	480	200	215	330	---	1640	3000	1980	149	106	450	148
30	403	205	210	315	---	1450	2140	1990	150	120	389	221
31	381	---	225	310	---	2230	---	2080	---	100	413	---
TOTAL	10331	7591	6690	17100	6910	85015	58390	33719	16344	6765	8671	11417
MEAN	333	253	216	552	247	2742	1946	1088	545	218	280	381
MAX	958	755	290	2200	350	8290	3430	2540	1690	652	694	1330
MIN	102	98	190	260	195	290	1090	381	149	100	65	148
CFSM	.76	.58	.50	1.27	.57	6.29	4.46	2.50	1.25	.50	.64	.87
IN.	.88	.65	.57	1.46	.59	7.25	4.98	2.88	1.39	.58	.74	.97

CAL YR 1978 TOTAL 261220 MEAN 716 MAX 4570 MIN 74 CFSM 1.64 IN 22.29
WTR YR 1979 TOTAL 268943 MEAN 737 MAX 8290 MIN 65 CFSM 1.69 IN 22.95

01137500 AMMONOOSUC RIVER AT BETHLEHEM JUNCTION, NH

LOCATION.--Lat 44°16'08", long 71°37'52", Grafton County, Hydrologic Unit 01080101, on left bank 0.2 mi (0.3 km) upstream from Pierce Bridge and Bethlehem Junction, 0.8 mi (1.3 km) upstream from unnamed tributary entering from left, 3 mi (5 km) east of Bethlehem, 3.4 mi (5.5 km) downstream from Little River, and at mile 35.0 (56.3 km).

DRAINAGE AREA.--87.6 mi^2 (226.9 km^2).

PERIOD OF RECORD.--Discharge: August 1939 to current year.
Water-quality records: Water years 1967-74.

REVISED RECORDS.--WSP 1701: 1951(M), 1953-54(M).

GAGE.--Water-stage recorder. Datum of gage is 1,180.74 ft (359.890 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records excellent except those for winter period, which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--40 years, 208 ft^3/s (5.891 m^3/s), 32.24 in/yr (819 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,800 ft^3/s (306 m^3/s) Oct. 24, 1959, gage height, 12.09 ft (3.685 m), from rating curve extended above 4,100 ft^3/s (116 m^3/s) on basis of slope-area measurement of peak flow; minimum, 16 ft^3/s (0.45 m^3/s) Nov. 14, 1952 (caused by anchor ice upstream).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,700 ft^3/s (76.5 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 2	2330	2850	80.7	6.70	2.042	Mar. 25	1130	3100	87.8	6.91	2.106
Mar. 6	2400	3740	106	7.42	2.262	Apr. 27	1330	*4340	123	7.89	2.405

Minimum discharge not determined, occurred during period of ice effect; minimum daily, 32 ft^3/s (0.91 m^3/s) Oct. 1, Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	66	45	50	75	65	742	628	388	73	36	44
2	49	62	45	600	70	60	542	476	290	120	37	40
3	43	61	40	1330	70	60	418	389	243	171	66	42
4	37	59	50	317	65	65	367	766	208	103	48	40
5	50	57	80	178	65	250	347	572	185	81	38	37
6	59	55	69	139	65	1990	293	409	229	76	34	107
7	65	54	59	130	65	2320	254	326	177	69	32	398
8	49	57	74	120	60	779	229	300	150	64	37	138
9	43	55	136	110	60	440	214	515	137	60	38	100
10	40	53	97	100	60	314	204	704	131	58	38	84
11	39	51	77	100	60	289	183	481	120	55	58	79
12	39	49	70	90	60	226	183	363	193	54	51	73
13	39	46	65	100	55	187	202	392	188	52	98	67
14	80	47	55	100	55	348	230	361	141	49	93	72
15	144	48	50	100	55	498	221	296	118	45	81	340
16	82	46	50	95	55	279	223	287	105	45	90	151
17	64	42	45	95	55	234	222	228	97	50	67	114
18	57	175	40	95	55	197	203	202	91	47	57	94
19	53	139	40	95	55	189	200	190	87	50	58	85
20	65	88	40	95	55	174	194	187	80	43	65	85
21	59	55	40	95	55	186	231	171	74	39	58	77
22	55	45	40	105	55	252	284	184	69	37	52	78
23	59	45	40	125	55	407	371	157	68	36	47	73
24	81	45	40	100	60	769	509	196	73	36	45	67
25	61	45	40	95	100	2360	571	790	73	37	47	63
26	72	45	40	90	90	1380	1070	624	66	36	46	59
27	227	40	40	85	75	636	2730	428	61	55	47	57
28	138	45	40	85	65	415	2260	308	58	45	57	55
29	92	45	40	80	---	337	1240	709	56	39	50	65
30	76	50	40	75	---	306	794	512	54	35	58	64
31	67	---	40	75	---	571	---	545	---	33	52	---
TOTAL	2116	1770	1667	5049	1770	16583	15731	12696	4010	1793	1681	2848
MEAN	68.3	59.0	53.8	163	63.2	535	524	410	134	57.8	54.2	94.9
MAX	227	175	136	1330	100	2360	2730	790	388	171	98	398
MIN	32	40	40	50	55	60	183	157	54	33	32	37
CFSM	.78	.67	.61	1.86	.72	6.11	5.98	4.68	1.53	.66	.62	1.08
IN.	.90	.75	.71	2.14	.75	7.04	6.68	5.39	1.70	.76	.71	1.21

CAL YR 1978 TOTAL 71419 MEAN 196 MAX 1880 MIN 28 CFSM 2.24 IN 30.33
WTR YR 1979 TOTAL 67714 MEAN 186 MAX 2730 MIN 32 CFSM 2.12 IN 28.75

01138000 AMMONOOSUC RIVER NEAR BATH, NH

LOCATION.--Lat 44°09'14", long 71°59'10", Grafton County, Hydrologic Unit 01080101, on left bank 0.4 mi (0.6 km) downstream from Wild Ammonoosuc River, 1.4 mi (2.3 km) southwest of Bath, and 3.3 mi (5.3 km) upstream from mouth.

DRAINAGE AREA.--395 mi² (1,023 km²).

PERIOD OF RECORD.--Discharge: September 1935 to current year.
Water-quality records: Water year 1953.

REVISED RECORDS.--WSP 871: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 454.14 ft (138.422 m) National Geodetic Vertical Datum of 1929 (levels by Connecticut River Power Co.).

REMARKS.--Records poor. No gage-height record Mar. 14 to Apr. 2. Occasional diurnal fluctuation at low flow caused by small powerplants upstream, greater fluctuation prior to 1968.

AVERAGE DISCHARGE.--44 years, 656 ft³/s (18.58 m³/s), 22.55 in/yr (573 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,900 ft³/s (790 m³/s) Mar. 18, 1936, gage height, 15.40 ft (4.694 m), from rating curve extended above 13,000 ft³/s (370 m³/s) on basis of slope-area measurement at gage height 14.28 ft (4.353 m); maximum gage height, 17.55 ft (5.349 m) June 30, 1973; minimum daily discharge, 35 ft³/s (0.99 m³/s) Sept. 15, 1957.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 6,500 ft³/s (180 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 7	0415	*12700	360	11.89	3.624	Mar. 25	--	10000	280	--	--

Minimum daily discharge, 59 ft³/s (1.67 m³/s) July 31, Aug. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	190	157	100	160	135	2200	1670	1220	120	59	105
2	110	177	105	300	155	130	2000	1270	840	230	63	88
3	117	167	115	3000	150	130	1820	1040	670	333	88	83
4	114	157	120	1000	150	140	1660	1870	544	300	107	84
5	117	150	110	450	145	600	1570	1730	471	187	84	90
6	148	146	125	350	140	6000	1500	1250	592	152	68	100
7	187	141	100	300	140	9290	1300	975	477	136	62	793
8	138	141	110	280	135	4180	1150	814	392	123	62	411
9	121	141	150	260	135	2600	1050	819	348	112	70	258
10	124	139	180	240	130	1930	940	1290	325	104	73	189
11	117	133	160	220	130	2170	880	1040	302	98	91	157
12	114	132	165	200	125	1630	930	733	454	94	102	136
13	113	127	135	195	120	1130	980	713	548	93	118	121
14	139	123	125	195	120	1400	1050	793	411	88	198	117
15	366	130	115	205	120	1850	1000	661	330	83	167	723
16	297	125	105	200	115	1300	1100	557	280	83	148	424
17	225	110	100	200	115	1000	1050	494	244	86	148	280
18	182	370	96	195	115	800	1000	444	215	87	114	213
19	167	270	88	195	110	620	1000	408	196	114	114	169
20	167	237	86	200	110	680	1050	382	175	97	141	156
21	189	189	120	205	110	940	1100	366	156	84	129	148
22	167	132	110	215	115	1300	1150	366	141	83	108	146
23	163	110	105	250	120	2000	1200	354	129	80	94	141
24	177	124	98	230	125	3500	1150	373	129	78	86	129
25	140	157	94	205	150	7500	1300	1770	130	76	85	118
26	160	178	100	195	190	3500	1620	2090	126	79	84	112
27	470	225	105	185	175	2000	2030	1170	117	84	90	103
28	330	273	100	175	150	1700	2130	814	109	88	130	99
29	270	352	92	170	---	1300	1940	1930	109	84	123	113
30	240	309	84	165	---	1400	1870	1630	109	70	132	129
31	210	---	88	165	---	1600	---	1930	---	60	152	---
TOTAL	5669	5355	3543	10445	3755	64455	40720	31746	10289	3586	3290	5935
MEAN	183	179	114	337	134	2079	1357	1024	343	116	106	198
MAX	470	370	180	3000	190	9290	2200	2090	1220	333	198	793
MIN	90	110	84	100	110	130	880	354	109	60	59	83
CFSM	.46	.45	.29	.85	.34	5.26	3.44	2.59	.87	.29	.27	.50
IN.	.53	.50	.33	.98	.35	6.07	3.83	2.99	.97	.34	.31	.56

CAL YR 1978 TOTAL 214722 MEAN 588 MAX 4380 MIN 60 CFSM 1.49 IN 20.22
WTR YR 1979 TOTAL 188788 MEAN 517 MAX 9290 MIN 59 CFSM 1.31 IN 17.78

01138500 CONNECTICUT RIVER AT WELLS RIVER, VT

LOCATION.--Lat 44°09'13", long 72°02'34", Orange County, Hydrologic Unit 01080101, on right bank at village of Wells River, 200 ft (61 m) downstream from bridge on U.S. Highway 302, 400 ft (100 m) upstream from Wells River, 1,200 ft (350 m) downstream from Ammonoosuc River, and at mile 266.0 (428.0 km).

DRAINAGE AREA.--2,644 mi^2 (6,848 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1949 to current year. October and November 1949 monthly discharge only, published in WSP 1301.

GAGE.--Water-stage recorder. Datum of gage is 399.75 ft (121.844 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period and period of no gage-height record, May 10 to June 24, which are fair. Flow regulated by powerplants, by First Connecticut and Second Connecticut Lakes, Lake Francis, Moore and Comerford Reservoirs (Reservoirs in Connecticut River basin), and other reservoirs, combined usable capacity, about 14,800,000,000 ft^3 (419,000,000 m^3).

AVERAGE DISCHARGE.--30 years, 4,730 ft^3/s (134.0 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,100 ft^3/s (1,620 m^3/s) July 1, 1973, gage height, 17.35 ft (5.288 m), from peak-stage indicator; minimum daily, 152 ft^3/s (4.30 m^3/s) Aug. 28, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 31,700 ft^3/s (898 m^3/s) Mar. 7, gage height, 10.37 ft (3.161 m); minimum daily, 250 ft^3/s (7.08 m^3/s) Sept. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	299	3090	1680	753	3680	1800	15000	10000	13000	1840	1310	2260
2	1330	3600	1200	3320	3270	2670	16200	7660	13000	2510	1490	250
3	976	3140	905	11800	1770	2850	16400	7310	4500	1620	1620	450
4	2140	1810	1400	8980	1670	2370	13900	7510	5600	1280	1310	1500
5	1730	1650	1880	8350	2590	4880	12400	8070	7400	2960	505	2640
6	1580	2230	1890	7850	3180	12200	10300	5320	7000	2290	1170	4130
7	1400	2220	1540	6170	2790	30000	8430	6260	6200	1730	1300	2900
8	883	1600	1990	6590	2390	25200	7090	6740	6400	322	1630	2600
9	1330	1200	1960	4000	2670	20100	6240	6000	4000	2660	960	1500
10	1460	1650	1490	2460	2490	18100	7240	7400	2700	1980	1250	2500
11	1340	600	1810	2770	1500	15800	6810	7200	5000	2030	932	2380
12	2180	1200	3280	3430	4330	12800	5760	2500	5600	1530	489	2050
13	2540	2200	3300	1870	3720	13100	6670	2300	6600	2400	1260	2570
14	1690	1330	2090	1020	4290	12600	5970	4500	7200	852	1110	2500
15	1330	1300	920	4170	4730	13000	5340	5400	6800	532	1430	3540
16	3720	1500	740	3710	3840	12100	5810	3800	4800	2080	780	2170
17	4720	3200	569	2640	1760	11600	10200	3100	1700	2470	1400	3050
18	3240	2700	936	2040	720	10300	11700	2800	5900	1700	350	2740
19	3110	2300	1480	2150	1070	9000	11200	300	5700	798	400	2180
20	938	2000	1280	1470	1780	7280	11400	1500	3500	1490	2000	1680
21	813	3280	1120	1330	2380	7600	10600	2700	2000	641	1900	1670
22	832	2850	1320	3090	2380	11300	10200	3500	1600	483	1500	947
23	2350	1830	801	3320	1100	13500	11400	3100	540	1870	1350	718
24	1820	917	602	3660	1480	18000	11800	3500	700	1730	1100	1490
25	1590	1010	755	3100	1700	26800	11100	5400	3870	1360	350	1680
26	1770	667	1420	2670	3140	25100	11900	10000	2270	1500	1000	1660
27	2520	2340	1170	1980	3520	20200	18000	8000	1960	744	1700	1490
28	2950	3120	2030	1120	2720	17600	20700	4000	1430	424	2000	1140
29	2340	2490	1350	2220	---	13700	16500	7000	857	836	2300	624
30	4050	1230	1030	3590	---	12000	11700	11000	318	950	2800	571
31	3750	---	858	3400	---	12600	---	12000	---	1080	3200	---
TOTAL	62721	60254	44796	115023	72660	416150	327960	175870	138145	46692	41896	57580
MEAN	2023	2008	1445	3710	2595	13420	10930	5673	4605	1506	1351	1919
MAX	4720	3600	3300	11800	4730	30000	20700	12000	13000	2960	3200	4130
MIN	299	600	569	753	720	1800	5340	300	318	322	350	250

CAL YR 1978 TOTAL 1645890 MEAN 4509 MAX 21800 MIN 255
WTR YR 1979 TOTAL 1559747 MEAN 4273 MAX 30000 MIN 250

01138500 CONNECTICUT RIVER AT WELLS RIVER, VT.--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952, 1957, April to September 1979.

WATER-QUALITY DATA, APRIL TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
APR 10...	1000	7140	62	6.7	3.5	3.0	13.4	101	96	40
MAY 08...	1230	6000	60	6.8	10.5	1.0	11.7	104	66	1
JUN 25...	1040	1830	87	7.3	16.5	1.0	8.9	90	100	29
JUL 17...	1050	2300	70	6.8	20.0	1.0	9.1	99	310	86
AUG 29...	1200	1440	80	7.1	20.0	2.0	8.8	96	K750	44
SEP 25...	1120	1670	121	7.7	13.5	1.0	10.0	95	180	21

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
APR 10...	25	5	8.7	.8	2.7	.7	20	--	7.4	3.9
MAY 08...	27	10	9.3	.9	2.5	.7	17	--	7.4	3.3
JUN 25...	35	6	12	1.2	4.0	.9	29	--	7.4	5.5
JUL 17...	26	7	8.6	1.0	3.5	.8	19	--	7.3	4.2
AUG 29...	32	6	11	1.1	4.1	.9	26	4.0	7.6	5.6
SEP 25...	0	0	--	--	--	--	41	1.6	8.8	6.3

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)
APR 10...	.0	5.4	50	42	.32	.03	.63	.66	.33	.33
MAY 08...	.1	5.1	53	40	.21	.00	.30	.30	.04	.26
JUN 25...	.1	5.3	66	54	.18	.03	.14	.17	.00	.22
JUL 17...	.1	4.8	56	42	.17	.06	.14	.20	.00	.23
AUG 29...	.1	4.9	64	51	.21	.04	.35	.39	.00	.42
SEP 25...	.1	--	74	40	.15	.04	.32	.36	.00	.44

DATE	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
APR 10...	.98	.02	.01	--	.3	4.9	9	174	79
MAY 08...	.51	.04	.00	4.0	--	--	4	65	100
JUN 25...	.35	.01	.01	4.7	--	--	1	4.9	100
JUL 17...	.37	.01	.01	--	.2	6.9	1	6.2	100
AUG 29...	.60	.01	.00	5.6	--	--	6	23	100
SEP 25...	.51	.01	.01	4.4	--	--	3	14	100

K, NON-IDEAL COLONY COUNT.

01138500 CONNECTICUT RIVER AT WELLS RIVER, VT.--Continued

WATER-QUALITY DATA, APRIL TO SEPTEMBER 1979

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)
APR 10...	0	0	0	0	0	0	0	1	10	0
JUL 17...	0	0	0	0	10	0	0	2	20	0

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
APR 10...	10	0	0	0	2	0	2	330	260	70
JUL 17...	20	0	0	0	1	0	1	240	170	70

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)
APR 10...	2	0	7	40	20	20	.5	.0	.5
JUL 17...	1	0	1	60	30	30	<.5	.0	<.5

DATE	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
APR 10...	0	0	0	1	1	0	20	10	10
JUL 17...	0	0	0	1	1	0	20	10	10

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, JULY TO AUGUST 1979

PERIPHYTON

Dates of exposure	Length of exposure (days)	Biomass (g/m^2) Dry weight	Biomass (g/m^2) Ash weight	Chlorophyll a (mg/m^2)	Chlorophyll b (mg/m^2)	Sampling method
July 17 to Aug. 29	43	1.34	1.18	3.15	0.830	Polyethylene strip

01138500 CONNECTICUT RIVER AT WELLS RIVER, VT--Continued

QUALITATIVE AND QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, MAY TO SEPTEMBER 1979

PHYTOPLANKTON

DATE	MAY 8.79		JUN 25.79		JUL 17.79		AUG 29.79		SEP 25.79	
TIME	1230		1040		1050		1200		1120	
TOTAL CELLS/ML	160		240		860		500		2300	
DIVERSITY: DIVISION	1.5		1.2		1.2		0.9		0.2	
.CLASS	1.5		1.2		1.2		0.9		0.2	
..ORDER	1.9		1.4		1.4		1.3		0.2	
...FAMILY	2.7		2.6		3.0		2.7		0.2	
....GENUS	2.7		2.8		0.0		2.9		0.2	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...MICRACTINIACEAE										
....GOLENKINIA	14	9	--	-	--	-	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	29#	18	26	11	66	8	39	8	13	1
....TREUBARIA	--	-	13	5	--	-	--	-	--	-
...SCENEDESMACEAE										
....SCENEDESMUS	--	-	100#	42	120	14	130#	26	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	29#	18	13	5	--	-	--	-	13	1
..ZYGNEMATALES										
...DESMIDIACEAE										
....COSMARIUM	--	-	--	-	5	1	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	--	-	30	4	52	10	39	2
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	29#	18	--	-	40	5	26	5	--	-
...CYMBELLACEAE										
....AMPHORA	--	-	--	-	20	2	--	-	--	-
....CYMBELLA	--	-	13	5	20	2	--	-	--	-
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	--	-	56	6	26	5	--	-
....FRAGILARIA	--	-	--	-	210#	25	13	3	--	-
....HANNAEA	14	9	--	-	--	-	--	-	--	-
....SYNEDRA	--	-	13	5	--	-	26	5	--	-
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	13	5	--	-	--	-	--	-
...NAVICULACEAE	--	-	--	-	40	5	--	-	--	-
....NAVICULA	--	-	13	5	76	9	13	3	--	-
...NITZSCHIACEAE										
....NITZSCHIA	14	9	26	11	71	8	39	8	--	-
...TABELLARIACEAE										
....TABELLARIA	--	-	--	-	35	4	140#	28	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE										
..CRYPTOMONADALES										
...CRYPTOMONADACEAE										
....CRYPTOMONAS	--	-	13	5	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	61	7	--	-	2200#	97
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....PHACUS	--	-	--	-	5	1	--	-	--	-
....TRACHELOMONAS	29#	18	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

01139000 WELLS RIVER AT WELLS RIVER, VT

LOCATION.--Lat 44°09'03", long 72°03'55", Orange County, Hydrologic Unit 01080103, on right bank 800 ft (250 m) upstream from railroad bridge, 0.8 mi (1.3 km) west of village of Wells River, and 1.5 mi (2.4 km) upstream from mouth.

DRAINAGE AREA.--98.4 mi² (254.9 km²).

PERIOD OF RECORD.--Discharge: August 1940 to current year.
Water-quality records: Water years 1957-58.

REVISED RECORDS.--WSP 1171: Drainage area. WSP 1201: 1942(P), 1944-45(M), 1946-47(P), 1948(M), 1950.

GAGE.--Water-stage recorder. Datum of gage is 505.53 ft (154.086 m) National Geodetic Vertical Datum of 1929 (levels by Connecticut River Power Co.).

REMARKS.--Records good except those for winter period, which are poor. Some diurnal fluctuation at low flow prior to 1958 caused by small powerplant upstream. Flow partly regulated by Groton and Ricker Ponds.

AVERAGE DISCHARGE.--39 years, 141 ft³/s (3.993 m³/s), 19.46 in/yr (494 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,970 ft³/s (169 m³/s) June 30, 1973, gage height, 9.82 ft (2.993 m), from rating curve extended above 1,400 ft³/s (40 m³/s) on basis of computation of peak flow over dam; minimum, 5.1 ft³/s (0.14 m³/s) Oct. 6, 1948; minimum daily, 8.3 ft³/s (0.24 m³/s) Sept. 5, 1953.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 980 ft³/s (28 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 6	0600	ice jam		*5.70	1.737	Mar. 25	2300	1290	36.5	4.92	1.500
Mar. 7	0530	*1810	51.3	5.68	1.731						

Minimum discharge, 21 ft³/s (0.59 m³/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	49	52	45	53	50	499	342	251	61	26	38
2	26	44	47	200	50	49	462	287	192	195	40	34
3	24	42	52	360	46	48	473	245	158	140	56	32
4	22	40	53	210	43	54	427	379	136	83	40	31
5	48	38	55	140	45	350	420	316	120	63	27	29
6	53	36	51	115	44	1150	379	259	232	56	23	100
7	61	35	47	100	42	1430	333	216	144	50	22	235
8	45	36	51	94	45	804	293	189	116	43	24	103
9	38	36	90	84	45	549	278	170	105	39	25	72
10	33	35	70	80	43	403	265	158	108	38	27	55
11	31	35	58	78	41	423	242	142	103	35	62	46
12	30	34	62	78	40	329	254	132	189	33	40	39
13	30	32	52	80	39	259	287	130	153	31	46	35
14	65	31	46	78	39	296	320	130	116	29	44	33
15	151	33	43	76	39	342	306	112	95	30	43	87
16	86	32	42	75	39	259	349	103	83	35	39	61
17	64	30	41	74	40	222	359	100	74	40	33	50
18	54	69	37	74	39	186	342	93	67	38	29	42
19	50	78	34	73	39	181	333	90	63	40	39	38
20	47	61	32	73	39	189	326	86	56	29	57	40
21	43	44	48	73	39	245	342	87	52	27	41	35
22	40	35	42	105	40	366	366	90	47	25	36	36
23	39	35	39	90	43	491	376	80	46	24	32	35
24	49	46	37	80	47	715	400	95	47	25	29	30
25	43	60	38	74	74	1170	383	437	44	25	31	28
26	42	65	41	68	73	1050	393	631	40	31	35	27
27	122	80	38	65	60	636	473	386	37	45	41	25
28	101	78	35	61	52	437	598	293	35	33	58	25
29	78	64	33	61	---	369	549	484	34	27	41	34
30	62	60	32	56	---	346	420	403	35	24	53	37
31	52	---	38	54	---	448	---	346	---	23	53	---
TOTAL	1650	1393	1436	2974	1278	13846	11247	7011	2978	1417	1192	1512
MEAN	53.2	46.4	46.3	95.9	45.6	447	375	226	99.3	45.7	38.5	50.4
MAX	151	80	90	360	74	1430	598	631	251	195	62	235
MIN	21	30	32	45	39	48	242	80	34	23	22	25
CFSM	.54	.47	.47	.98	.46	4.54	3.81	2.30	1.01	.46	.39	.51
IN.	.62	.53	.54	1.12	.48	5.23	4.25	2.65	1.13	.54	.45	.57

CAL YR 1978 TOTAL 49858 MEAN 137 MAX 747 MIN 19 CFSM 1.39 IN 18.85
WTR YR 1979 TOTAL 47934 MEAN 131 MAX 1430 MIN 21 CFSM 1.33 IN 18.12

01139800 EAST ORANGE BRANCH AT EAST ORANGE, VT

LOCATION.--Lat 44°05'34", long 72°20'10", Orange County, Hydrologic Unit 01080103, on left bank 0.3 mi (0.5 km) east of East Orange, 1.6 mi (2.6 km) upstream from mouth, and 5 mi (8 km) southwest of Orange.

DRAINAGE AREA.--8.95 mi² (23.18 km²).

PERIOD OF RECORD.--June 1958 to current year.

REVISED RECORDS.--WDR MA-NH-RI-VT-72-1: 1960-64(P), 1969-71(P).

GAGE.--Water-stage recorder. Altitude of gage is 1,180 ft (360 m), from topographic map.

REMARKS.--Records fair except those for winter period and period of no gage-height record, Mar. 8 to Apr. 6, which are poor. Occasional diurnal fluctuation at low flow caused by mill upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--21 years, 15.7 ft³/s (0.445 m³/s), 23.82 in/yr (605 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 672 ft³/s (19.0 m³/s) June 30, 1973, gage height, 5.55 ft (1.692 m), from rating curve extended above 130 ft³/s (3.7 m³/s) on basis of slope-area measurement of peak flow; maximum gage height, 6.35 ft (1.935 m) Jan. 22, 1959, ice jam; minimum discharge, 0.1 ft³/s (0.003 m³/s) Sept. 9, 19, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 140 ft³/s (4.0 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 6	1200	150	4.2	b*5.15	1.570	Mar. 25	unknown	a*211	5.98	c3.73	1.137

a From rating curve extended above 20 ft³/s (0.57 m³/s) on basis of slope-area measurement at gage height 5.55 ft (1.692 m).
b Ice jam.
c From peak-stage indicator.

Minimum discharge, 1.0 ft³/s (0.028 m³/s) Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	3.1	3.0	52	7.6	5.4	62	36	37	7.7	1.8	1.6
2	2.9	3.1	3.1	45	7.3	5.4	56	31	32	20	1.6	1.3
3	2.6	2.9	3.8	32	7.1	5.3	47	30	28	19	3.6	1.8
4	3.2	2.7	4.1	24	6.8	15	43	40	25	11	2.6	2.1
5	6.8	2.7	3.9	19	6.6	80	38	37	23	8.6	1.9	1.4
6	8.6	2.7	3.9	16	6.5	110	33	33	23	8.0	1.6	15
7	3.2	3.1	6.0	14	6.4	45	32	29	21	7.1	1.3	7.7
8	2.3	3.2	11	13	6.2	39	35	27	19	6.2	1.3	3.8
9	1.8	2.9	5.8	12	6.0	38	34	25	17	5.4	1.3	2.7
10	1.7	2.7	5.4	11	5.9	37	32	23	16	4.7	1.6	2.4
11	1.6	2.6	5.0	11	5.8	42	34	21	16	4.0	3.2	2.1
12	1.4	2.4	5.7	10	5.7	36	43	21	19	3.6	2.4	2.0
13	2.4	2.3	5.2	9.6	5.6	28	43	20	19	3.1	2.9	1.9
14	13	2.7	4.4	11	5.5	31	41	20	18	2.7	2.9	5.4
15	8.0	2.7	3.7	10	5.4	34	38	19	15	2.3	2.4	6.8
16	3.6	2.4	3.4	10	5.4	30	43	18	14	2.7	2.3	3.2
17	2.7	2.6	3.3	9.7	5.4	27	44	17	12	5.7	1.7	2.6
18	2.6	8.6	3.1	9.4	5.3	24	43	15	11	5.4	1.4	2.3
19	2.6	8.3	3.0	9.0	5.2	22	37	15	11	6.2	5.2	3.1
20	2.6	7.4	3.2	9.6	5.1	23	35	13	9.9	4.3	6.2	2.6
21	2.3	3.1	3.1	12	5.1	30	34	13	9.0	3.2	3.8	2.4
22	2.1	2.4	2.9	15	5.4	45	34	14	8.0	2.6	2.7	3.6
23	3.1	3.1	2.8	13	5.8	60	36	13	7.4	2.1	2.3	2.4
24	3.8	3.6	2.8	12	5.7	90	38	13	6.6	1.9	2.0	2.1
25	2.9	3.1	2.7	10	5.6	130	41	44	6.1	1.7	2.3	2.0
26	3.2	3.1	2.7	9.8	5.5	110	45	63	5.7	2.1	2.0	2.0
27	9.9	3.1	2.7	9.4	5.4	90	66	43	5.4	5.2	3.4	1.8
28	4.7	3.2	2.7	8.9	5.4	58	97	35	5.1	3.2	4.9	1.9
29	3.6	3.3	2.7	8.6	---	44	51	41	5.6	2.6	3.2	5.2
30	3.2	3.1	2.7	8.2	---	38	40	42	4.9	2.0	3.1	3.1
31	3.1	---	4.9	7.9	---	66	---	44	---	2.0	2.1	---
TOTAL	117.6	102.2	122.7	452.1	164.7	1438.1	1295	855	449.7	166.3	81.0	98.3
MEAN	3.79	3.41	3.96	14.6	5.88	46.4	43.2	27.6	15.0	5.36	2.61	3.28
MAX	13	8.6	11	52	7.6	130	97	63	37	20	6.2	15
MIN	1.4	2.3	2.7	7.9	5.1	5.3	32	13	4.9	1.7	1.3	1.3
CFSM	.42	.38	.44	1.63	.66	5.18	4.83	3.08	1.68	.60	.29	.37
IN.	.49	.42	.51	1.88	.68	5.98	5.38	3.55	1.87	.69	.34	.41

CAL YR 1978 TOTAL 6049.7 MEAN 16.6 MAX 110 MIN 1.2 CFSM 1.86 IN 25.14
WTR YR 1979 TOTAL 5342.7 MEAN 14.6 MAX 130 MIN 1.3 CFSM 1.63 IN 22.20

01141500 OMPOMPANOOSUC RIVER AT UNION VILLAGE, VT

LOCATION.--Lat 43°47'23", long 72°15'19", Orange County, Hydrologic Unit 01080103, on right bank 100 ft (30 m) upstream from covered bridge at Union Village, 0.2 mi (0.3 km) downstream from Avery Brook, 0.3 mi (0.5 km) downstream from Union Village Reservoir, and 3.8 mi (6.1 km) upstream from mouth.

DRAINAGE AREA.--130 mi^2 (337 km^2).

PERIOD OF RECORD.--Discharge: September 1940 to current year.
Water-quality records: Water years 1955, 1957-58.

GAGE.--Water-stage recorder. Altitude of gage is 435 ft (133 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, June 21 to July 19, which are fair, and those for winter period, which are poor. Flow regulated by Union Village Reservoir (Reservoirs in Connecticut River basin) since October 1949. Some regulation by Lake Fairlee. Several observations of water temperatures and specific conductance were made during the year.

AVERAGE DISCHARGE.--39 years, 195 ft^3/s (5.522 m^3/s), 20.37 in/yr (517 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,800 ft^3/s (136 m^3/s) June 3, 1947, gage height, 9.65 ft (2.941 m), from rating curve extended above 2,400 ft^3/s (68 m^3/s) on basis of slope-area measurement of peak flow; minimum, 1.7 ft^3/s (0.048 m^3/s) Oct. 14, 1949; minimum daily, 2.0 ft^3/s (0.057 m^3/s) Oct. 20, 1949. Maximum discharge since construction of Union Village Reservoir in 1949, 2,350 ft^3/s (66.6 m^3/s) Apr. 20, 1950, gage height, 7.62 ft (2.323 m); maximum gage height, 7.68 ft (2.341 m) Apr. 7, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1869, about 14.5 ft (4.42 m) in November 1927, from information by local resident (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,840 ft^3/s (52.1 m^3/s) Mar. 13, gage height, 7.40 ft (2.256 m); minimum, 14 ft^3/s (0.40 m^3/s) Oct. 1; minimum daily, 14 ft^3/s (0.40 m^3/s) Oct. 1.

DISCHARGE, STREAM (CUBIC FEET PER SECOND), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	31	21	26	100	120	587	420	346	46	28	33
2	15	28	21	150	95	120	580	364	293	125	25	29
3	16	31	21	460	90	115	636	331	254	95	28	28
4	16	27	20	350	86	110	590	504	220	52	26	29
5	21	25	20	260	82	250	601	380	192	39	22	26
6	35	24	20	230	80	520	499	328	208	34	21	111
7	46	24	20	190	76	300	445	296	171	33	19	202
8	30	25	21	170	74	180	387	271	154	32	19	77
9	26	27	25	140	74	85	391	251	146	27	18	57
10	23	25	40	125	72	287	385	228	136	23	24	47
11	22	23	62	115	72	653	357	209	128	22	46	41
12	21	22	42	100	72	1250	366	195	216	21	35	37
13	21	21	31	120	70	1740	455	192	160	19	51	34
14	43	21	31	135	70	1690	464	199	128	36	40	38
15	112	21	31	145	68	1360	460	181	111	31	33	129
16	59	18	30	130	68	839	461	166	96	20	29	64
17	46	18	29	125	68	450	459	150	84	19	26	51
18	38	22	28	120	66	357	434	138	77	28	25	45
19	35	25	27	110	64	349	410	131	73	65	39	42
20	37	24	30	105	62	363	389	124	62	42	51	43
21	34	23	33	110	62	424	393	128	58	33	36	39
22	32	22	38	160	62	662	398	135	56	29	32	45
23	31	22	34	220	62	963	399	113	41	26	29	42
24	35	22	30	160	100	1210	403	231	30	24	27	37
25	34	22	27	145	120	1260	384	790	35	23	27	35
26	32	22	27	130	135	1400	375	797	36	27	25	33
27	43	22	27	120	125	1290	565	492	34	45	28	31
28	50	22	27	115	115	617	788	394	34	37	46	31
29	39	22	27	110	---	539	718	546	42	30	35	44
30	34	21	26	105	---	532	513	457	39	26	71	46
31	32	---	26	105	---	571	---	449	---	29	43	---
TOTAL	1070	702	892	4786	2290	20606	14292	9590	3660	1138	1004	1546
MEAN	34.5	23.4	28.8	154	81.8	665	476	309	122	36.7	32.4	51.5
MAX	112	31	62	460	135	1740	788	797	346	125	71	202
MIN	14	18	20	26	62	85	357	113	30	19	18	26
MEAN†	34.4	28.3	29.1	155	81.6	665	473	308	121	36.7	32.4	51.6
CFSM†	.26	.22	.22	1.19	.63	5.12	3.64	2.37	.93	.28	.25	.40
IN†	.30	.24	.26	1.37	.65	5.90	4.06	2.74	1.03	.33	.29	.44

CAL YR 1978 TOTAL 60756 MEAN 166 MAX 1260 MIN 14 MEAN† 166 CFSM† 1.28 IN† 17.38
WTR YR 1979 TOTAL 61576 MEAN 169 MAX 1740 MIN 14 MEAN† 169 CFSM† 1.30 IN† 17.62

† Adjusted for change in contents in Union Village Reservoir.

01141800 MINK BROOK NEAR ETNA, NH

LOCATION.--Lat 43°42'08", long 72°11'15", Grafton County, Hydrologic Unit 01080104, on left bank 2 mi (3 km) northeast of Etna and 5 mi (8 km) east of Hanover.

DRAINAGE AREA.--4.60 mi² (11.91 km²).

PERIOD OF RECORD.--August 1962 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,000 ft (300 m), from topographic map.

REMARKS.--Records poor. No gage-height record Nov. 27 to Mar. 8, Mar. 22 to Apr. 26, May 26 to Sept. 30. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--17 years, 7.01 ft³/s (0.216 m³/s), 22.47 in/yr (571 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 560 ft³/s (15.9 m³/s) Aug. 15, 1976, gage height, 3.80 ft (1.158 m), from rating curve extended above 130 ft³/s (3.7 m³/s) on basis of slope-area measurement at gage heights 3.50 ft (1.067 m) and 3.75 ft (1.143 m); maximum gage height, 4.28 ft (1.305 m) Jan. 9, 1978, back-water from ice; minimum discharge, 0.01 ft³/s (<0.001 m³/s) Aug. 11, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges, above base of 55 ft³/s (160 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 26	--	*140	4.0	unknown		May 24	1845	102	2.89	2.53	0.771
Apr. 26	0115	76	2.15	2.40	0.732						

Minimum discharge, 0.13 ft³/s (0.004 m³/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	.66	.70	.34	.72	2.0	35	25	5.0	1.5	.23	.28
2	.37	.67	.64	3.0	.70	1.3	38	21	4.0	4.7	.29	.26
3	.28	.66	.58	19	.68	.90	43	19	3.2	2.5	.50	.25
4	.26	.64	.70	10	.67	.60	40	33	2.8	1.9	.45	.24
5	.45	.63	.80	8.0	.65	1.5	37	23	2.2	1.0	.37	.20
6	1.3	.62	.70	6.0	.64	8.0	30	19	2.5	.74	.30	.40
7	1.1	.61	1.3	4.5	.62	40	25	16	2.3	.62	.25	1.1
8	.80	.60	2.0	3.5	.60	32	20	15	1.9	.56	.20	.70
9	.55	.70	3.5	2.5	.59	27	18	13	1.7	.48	.25	.54
10	.50	.74	9.0	2.0	.58	23	16	11	1.6	.43	.30	.42
11	.41	.78	2.0	1.7	.57	21	15	9.7	1.5	.40	.40	.35
12	.41	.72	1.2	1.5	.56	19	17	8.9	1.4	.37	.45	.31
13	.37	.64	.80	1.3	.55	18	19	7.8	1.4	.36	.98	.29
14	1.0	.70	.67	1.1	.54	26	22	7.3	1.2	.36	.94	.28
15	2.4	.74	.61	9.0	.53	21	23	6.3	1.0	.37	.65	.45
16	1.2	.68	.55	6.0	.53	18	24	5.0	.90	.40	.50	.68
17	.87	.62	.52	4.0	.52	20	24	3.4	.80	.56	.42	.45
18	.73	6.8	.49	3.0	.52	20	25	3.2	.74	.66	.37	.40
19	.80	2.6	.46	2.0	.51	18	25	3.7	.68	.56	.37	.35
20	1.3	1.7	.44	1.5	.50	17	26	4.3	.62	.45	.40	.28
21	.95	1.3	.43	.96	.50	25	27	6.1	.57	.37	.35	.25
22	.80	1.3	.42	7.2	.49	35	28	8.4	.54	.33	.35	.45
23	.73	.95	.40	4.5	.48	45	27	5.3	.49	.30	.32	.50
24	.62	.84	.39	2.5	1.5	70	29	38	.47	.29	.28	.45
25	.58	.76	.38	2.0	8.0	100	20	91	.44	.27	.26	.37
26	.56	.72	.37	1.5	7.0	110	17	40	.42	.28	.25	.33
27	.95	.64	.36	1.2	4.5	70	27	20	.39	.29	.30	.29
28	1.0	.58	.35	1.0	2.8	50	52	7.8	.37	.30	.32	.27
29	.87	.70	.35	.90	---	33	46	8.6	.60	.28	.33	.40
30	.73	.78	.34	.80	---	24	31	9.2	.74	.25	.32	.47
31	.72	---	.34	.76	---	30	---	6.4	---	.24	.30	---
TOTAL	23.75	31.12	31.79	113.26	37.05	926.30	826	495.4	42.47	22.12	12.00	12.01
MEAN	.77	1.04	1.03	3.65	1.32	29.9	27.5	16.0	1.42	.71	.39	.40
MAX	2.4	6.8	9.0	19	8.0	110	52	91	5.0	4.7	.98	1.1
MIN	.16	.58	.34	.34	.48	.60	15	3.2	.37	.24	.20	.20
CFSM	.17	.23	.22	.79	.29	6.50	5.98	3.48	.31	.15	.09	.09
IN.	.19	.25	.26	.92	.30	7.49	6.68	4.01	.34	.18	.10	.10

CAL YR 1978 TOTAL 3020.46 MEAN 8.28 MAX 82 MIN .09 CFSM 1.80 IN 24.42
WTR YR 1979 TOTAL 2573.27 MEAN 7.05 MAX 110 MIN .16 CFSM 1.53 IN 20.81

01142500 AYERS BROOK AT RANDOLPH, VT

LOCATION.--Lat 43°56'04", long 72°39'30", Orange County, Hydrologic Unit 01080105, on right bank 135 ft (41 m) upstream from bridge on State Highway 12, just north of village limits of Randolph, 0.4 mi (0.6 km) upstream from Adams Brook, and 1.2 mi (1.9 km) upstream from mouth.

DRAINAGE AREA.--30.5 mi² (79.0 km²).

PERIOD OF RECORD.--July 1939 to September 1975, June 1976 to current year.

REVISED RECORDS.--WDR MA-NH-RI-VT-72-1: 1949(M), 1952(M), 1953(P), 1958(P), 1960(M), 1967(M).

GAGE.--Water-stage recorder. Datum of gage is 630.50 ft (192.176 m) Vermont State Department of Highways datum. Prior to Oct. 1, 1964, at site 140 ft (43 m) downstream at datum 2.25 ft (0.686 m) higher and Oct. 1, 1964, to Sept. 30, 1975, at site 140 ft (43 m) downstream at datum 1.25 ft (0.381 m) higher.

REMARKS.--Records good except those for winter period and period of no gage-height record, Dec. 15 to Jan. 25, May 30 to July 16, which are poor. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--39 years (water years 1940-75, 1977-79), 46.4 ft³/s (1.314 m³/s), 20.66 in/yr (525 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,600 ft³/s (73.6 m³/s) June 30, 1973, gage height, 10.37 ft (3.161 m), present datum, from rating curve extended above 500 ft³/s (14.2 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 0.6 ft³/s (0.017 m³/s) July 27, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1830, about 18 ft (5.5 m), present datum, in November 1927.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft³/s (9.9 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 7	0145	600	17	a*6.75	2.057	Mar. 25	1015	*641	18.2	6.26	1.908

a Ice jam.

Minimum discharge, 6.0 ft³/s (0.17 m³/s) Aug. 9 and Sept. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	16	17	25	27	18	202	133	100	30	7.3	8.5
2	14	15	17	250	26	18	200	115	85	66	9.6	7.5
3	14	14	11	190	25	18	200	104	74	45	23	7.3
4	14	14	16	80	24	19	184	139	66	38	13	7.0
5	31	14	19	65	23	60	181	109	60	23	9.9	6.8
6	49	13	19	55	23	280	162	97	65	21	9.6	28
7	32	13	19	50	22	480	146	87	58	19	8.0	45
8	20	13	21	45	22	280	136	82	50	18	7.5	20
9	17	14	37	41	21	170	132	75	46	16	6.8	15
10	15	13	26	37	21	154	125	69	42	15	8.7	13
11	14	13	17	35	21	174	118	62	49	14	16	11
12	13	13	22	33	20	135	129	59	74	13	12	11
13	13	12	22	32	20	160	147	56	64	12	13	9.6
14	44	12	21	31	19	157	163	56	53	12	12	11
15	56	12	21	37	19	187	150	51	45	11	11	33
16	31	12	20	34	19	168	154	46	38	16	10	18
17	24	12	19	32	19	125	144	43	32	22	9.7	14
18	22	37	18	31	18	124	140	39	30	17	8.8	12
19	20	31	17	30	18	116	132	39	29	14	11	12
20	19	25	18	31	18	123	132	37	27	12	14	13
21	19	21	19	32	18	156	140	37	25	11	13	12
22	17	15	18	47	18	185	149	36	23	9.9	11	12
23	17	14	18	42	18	251	159	33	21	9.0	9.4	12
24	18	17	17	38	18	301	163	45	20	9.0	8.0	10
25	18	17	17	35	19	554	159	211	19	9.0	8.0	9.9
26	17	15	17	33	20	369	157	251	18	9.0	8.0	9.9
27	29	14	17	32	19	251	225	168	17	15	15	9.0
28	23	16	17	30	18	217	198	146	16	13	19	8.7
29	20	16	17	29	---	191	198	165	23	11	13	12
30	18	17	17	28	---	184	156	130	19	9.3	12	13
31	17	---	17	27	---	222	---	115	---	8.0	11	---
TOTAL	685	480	588	1537	573	5847	4701	2835	1288	547.2	348.3	411.2
MEAN	22.1	16.0	19.0	49.6	20.5	189	150	91.5	42.9	17.7	11.2	13.7
MAX	56	37	37	250	27	554	225	251	100	66	23	45
MIN	10	12	11	25	18	18	118	33	16	8.0	6.8	6.8
CFSM	.73	.53	.62	1.63	.67	6.20	5.21	3.00	1.41	.58	.37	.45
IN.	.84	.59	.72	1.87	.70	7.13	5.83	3.46	1.57	.67	.42	.50

CAL YR 1978 TOTAL 18076.9 MEAN 49.5 MAX 291 MIN 4.9 CFSM 1.62 IN 22.05
WTR YR 1979 TOTAL 19920.7 MEAN 54.6 MAX 554 MIN 6.0 CFSM 1.79 IN 24.30

01144000 WHITE RIVER AT WEST HARTFORD, VT

LOCATION.--Lat 43°42'51", long 72°25'07", Windsor County, Hydrologic Unit 01080105, on left bank 700 ft (200 m) upstream from highway bridge at West Hartford and 7.4 mi (11.9 km) upstream from mouth.

DRAINAGE AREA.--690 mi² (1,790 km²).

PERIOD OF RECORD.--Discharge: June 1915 to current year. October 1927 to September 1928 monthly discharge only, published in WSP 1301.

Water-quality records: Water years 1953, 1967-74.

REVISED RECORDS.--WSP 756: Drainage area. WSP 781: 1928(M). WSP 1031: 1916(m), 1923. WSP 1301: 1916-26(M), 1929(M).

GAGE.--Water-stage recorder. Datum of gage is 374.53 ft (114.157 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 30, 1927, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter period, which are fair. Some diurnal fluctuation at low flow during period 1934-50 caused by powerplant upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--64 years, 1,187 ft³/s (33.62 m³/s), 23.36 in/yr (593 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 120,000 ft³/s (3,400 m³/s) Nov. 4, 1927, gage height, 29.3 ft, (8.93 m), from floodmarks, from rating curve extended above 29,000 ft³/s (820 m³/s) on basis of slope-area measurement of peak flow; minimum observed, about 35 ft³/s (0.99 m³/s) Aug. 4, 1918; minimum daily, 54 ft³/s (1.53 m³/s) Sept. 27, 28, 1963.

Stage and discharge of the flood of Nov. 4, 1927, are the greatest since at least 1761.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 11,600 ft³/s (329 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 6	1300	ice jam		*14.22	4.334	Mar. 25	1200	*15400	436	12.10	3.688
Mar. 7	0130	12500	354	11.07	3.374	May 25	2330	12100	343	10.94	3.335

Minimum discharge, 142 ft³/s (4.02 m³/s) Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	153	599	380	600	690	760	5720	2880	1970	443	200	261
2	161	532	340	6000	660	750	4650	2420	1620	1320	173	223
3	188	496	290	5300	620	740	4490	2140	1470	840	173	200
4	173	471	270	2100	600	730	4250	2560	1300	571	250	200
5	279	443	450	1500	570	1300	3890	2300	1140	447	216	194
6	520	433	470	1300	550	7700	3410	1990	1300	410	185	359
7	1080	415	430	1200	530	9210	2920	1780	1120	383	185	2210
8	628	410	400	1150	510	5100	2560	1600	985	343	179	833
9	443	424	1000	970	500	3800	2520	1480	903	318	153	538
10	383	387	900	870	490	3160	2350	1360	840	298	150	410
11	343	378	500	760	490	3810	2080	1250	819	279	327	343
12	310	356	560	680	480	3030	2180	1200	1480	261	279	306
13	302	347	620	800	480	2400	2490	1120	1300	247	302	268
14	770	335	560	900	470	3140	2640	1200	1020	365	272	272
15	1770	339	500	1000	470	3900	2660	1120	840	261	247	877
16	1060	323	480	940	460	2530	2920	970	705	233	233	645
17	738	302	440	860	450	2390	3040	903	633	371	213	457
18	604	516	400	800	440	2030	3010	826	587	392	194	387
19	543	833	330	760	440	1960	2900	770	571	302	188	339
20	538	587	380	720	440	1960	2950	757	507	247	323	347
21	527	481	450	770	430	2280	3000	738	471	223	310	310
22	467	350	520	1000	430	3440	3300	744	433	200	250	314
23	433	320	500	1500	430	5330	3680	675	419	191	210	352
24	486	380	480	1100	450	7820	4160	979	410	182	194	302
25	476	390	460	950	650	14000	4010	5760	387	167	179	279
26	438	380	440	900	900	10400	4190	7500	361	210	194	268
27	1010	340	410	860	830	5580	5010	3810	343	240	203	261
28	1240	290	400	820	780	4070	5580	2910	323	272	392	247
29	978	330	390	790	---	3490	5010	3590	457	226	343	268
30	764	390	390	760	---	3380	3660	2720	378	200	438	383
31	651	---	470	720	---	4840	---	2420	---	229	335	---
TOTAL	18456	12577	14610	39380	15240	125030	105230	62472	25042	10671	7490	12653
MEAN	595	419	471	1270	544	4033	3508	2015	836	344	242	422
MAX	1770	833	1000	6000	900	14000	5720	7500	1970	1320	438	2210
MIN	153	290	270	600	430	730	2080	675	323	167	150	194
CFSM	.86	.61	.68	1.84	.79	5.85	5.08	2.92	1.21	.50	.35	.61
IN.	1.00	.68	.79	2.12	.82	6.74	5.67	3.37	1.35	.58	.40	.68

CAL YR 1978 TOTAL 434019 MEAN 1189 MAX 8130 MIN 147 CFSM 1.72 IN 23.40
WTR YR 1979 TOTAL 448901 MEAN 1230 MAX 14000 MIN 150 CFSM 1.78 IN 24.20

01144500 CONNECTICUT RIVER AT WEST LEBANON, NH
(Formerly published as Connecticut River at White River Junction, VT)

LOCATION.--Lat 43°38'46", long 72°18'46", Grafton County, Hydrologic Unit 01080104, on left bank 50 ft (15 m) downstream from railroad bridge at West Lebanon, 500 ft (150 m) downstream from White River, and at mile 215.0 (345.9 km).

DRAINAGE AREA.--4,092 mi² (10,598 km²).

PERIOD OF RECORD.--Discharge: October 1911 to November 1976, (published as "at White River Junction, VT"), November 1978 to September 1979.
Water-Quality reocords: Water year 1954

REVISED RECORDS.--WSP 741: 1932 (adjusted monthly and yearly figures only). WSP 781: 1928(M). WSP 891: Drainage area. WSP 1301: 1922-26(M).

GAGE.--Water-stage recorder. Datum of gage is 321.52 ft (97.999 m) National Geodetic Vertical Datum of 1929. Prior to June 16, 1918, nonrecording gage on downstream side of pier of railroad bridge 50 ft (15 m) upstream at same datum. June 16, 1918, to Nov. 2, 1930, nonrecording gage at various locations on upstream and downstream sides of railroad bridge at same datum.

REMARKS.--Records good. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes, Lake Francis, Moore and Comerford Reservoirs, Union Village Reservoir (Reservoirs in Connecticut River basin), and other reservoirs, combined usable capacity, about 17,200,000,000 ft³ (487,000,000 m³). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--65 years (water years 1912-76), 7,144 ft³/s (202.3 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 136,000 ft³/s (3,850 m³/s) Nov. 4, 1927, gage height, 35.0 ft (10.67 m), present site, from rating curve extended above 70,000 ft³/s (1,980 m³/s); minimum daily, 82 ft³/s (2.32 m³/s) Aug. 8, 1965.
Stage and discharge of the flood of Nov. 4, 1927, are the greatest since at least 1760.

EXTREMES FOR PERIOD NOVEMBER 1978 TO SEPTEMBER 1979.--Peak discharges above base of 34,000 ft³/s (960 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 7	0645	43000	1200	a*22.47	6.849	Mar. 26	0330	*49000	1390	18.82	5.736

a Ice jam.

Minimum discharge, 502 ft³/s (14.2 m³/s) Dec. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, NOVEMBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	1810	824	5000	3700	23900	16500	17500	4380	1710	1880
2		---	1970	10100	5800	4700	25000	14100	16300	6340	1670	1190
3		---	988	12800	4000	5000	26000	12700	11200	2930	2080	1380
4		---	2860	14300	2300	3500	24200	12900	8330	1900	2200	2400
5		---	3060	14000	5000	7000	21100	12600	9950	4900	1660	5270
6		---	2410	12300	4300	27000	17300	12200	9530	3000	2260	5930
7		---	2020	9430	4200	40000	15000	9890	8470	1700	1540	7730
8		---	2950	10900	3200	37000	12900	10200	8500	1600	2490	4290
9		---	3740	6880	3100	35300	12000	8350	7030	3600	2080	1960
10		---	1900	4190	2900	31600	12500	8590	3420	2900	1700	3770
11		---	3210	5600	1900	29100	11600	9720	8210	2500	1700	3450
12		---	3590	6490	5800	21400	9550	7370	9230	2500	869	3330
13		---	3960	1770	5000	19100	11900	5080	9450	3400	2220	6130
14		---	3420	2300	5600	20700	13000	7820	8210	1300	1850	3590
15		---	2020	7450	5400	21300	11000	5850	8150	1200	1820	3780
16		---	1020	3200	5300	18600	11200	6140	4230	3500	2190	6520
17		---	502	3600	2500	17400	14300	4750	2400	3300	1980	4600
18		---	2950	3800	1500	15500	15300	3920	6750	2660	896	4030
19		---	2080	4200	2400	13400	16700	3710	6590	1750	749	3480
20		4500	2170	2400	3500	13000	16800	2810	4490	1940	3120	3100
21		3510	1170	3900	3000	12100	16800	5230	2520	1010	2990	3110
22		5220	1080	6000	3700	17500	15900	5370	2660	1080	2250	2210
23		904	1740	5800	4400	23700	17500	5290	1120	3360	2130	1690
24		2730	1320	5500	2800	30000	18800	6630	1480	2070	2160	3320
25		1640	1410	4500	2500	44200	18700	15300	4270	2400	984	2550
26		879	2910	4200	4800	46600	18000	25000	3140	2610	880	3060
27		5350	1470	1400	4700	37600	25200	16700	2670	1190	3540	2780
28		2330	3110	3500	4300	29700	31900	13000	2300	1130	3070	3160
29		1690	2870	4500	---	24900	31600	11500	1560	1010	3740	3110
30		1230	1960	4100	---	20300	20400	17200	1880	1860	3080	2170
31		---	811	3500	---	21200	---	18100	---	1870	2800	---
TOTAL		---	68481	183434	108900	692100	536050	314520	191540	76730	64408	104970
MEAN		---	2209	5917	3889	22330	17870	10150	6385	2475	2078	3499
MAX		---	3960	14300	5800	46600	31900	25000	17500	6340	3740	7730
MIN		---	502	824	1500	3500	9550	2810	1120	1010	749	1190

CONNECTICUT RIVER BASIN

01150500 MASCOMA RIVER AT MASCOMA, NH

LOCATION.--Lat 43°39'01", long 72°11'05", Grafton County, Hydrologic Unit 01080104, on left bank at Mascoma, 250 ft (76 m) downstream from railroad bridge, 1,000 ft (300 m) downstream from outlet of Mascoma Lake, and 9.9 mi (15.9 km) upstream from mouth.

DRAINAGE AREA.--153 mi^2 (396 km^2).

PERIOD OF RECORD.--August 1923 to current year.

REVISED RECORDS.--WSP 726: Drainage area. WSP 801: 1925(M).

GAGE.--Water-stage recorder. Altitude of gage is 740 ft (226 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record Sept. 1-30, which are fair. Flow regulated by Mascoma and Crystal Lakes and Goose and Grafton Ponds (Reservoirs in Connecticut River basin).

AVERAGE DISCHARGE.--56 years, 216 ft^3/s (6.117 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,840 ft^3/s (165 m^3/s) Mar. 19, 1936, gage height, 7.50 ft (2.286 m), from rating curve extended above 2,500 ft^3/s (71 m^3/s) on basis of computations of flow over dams at gage heights 6.85 ft (2.088 m) and 7.50 ft (2.286 m); minimum daily, 2 ft^3/s (0.06 m^3/s) Feb. 3, 1939, Sept. 1, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,850 ft^3/s (52.4 m^3/s) Mar. 27, gage height, 4.30 ft (1.311 m); minimum daily, 28 ft^3/s (0.79 m^3/s) June 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	60	57	41	109	42	735	754	842	90	56	32
2	103	57	55	46	109	43	729	682	747	290	55	34
3	105	54	53	91	108	44	729	389	665	159	54	32
4	103	53	52	162	106	45	741	32	328	157	52	32
5	106	50	49	217	105	70	735	60	48	125	50	32
6	112	48	48	241	132	122	420	111	54	94	46	42
7	118	52	50	235	154	315	254	149	91	94	44	32
8	122	60	55	205	125	916	308	244	157	91	42	32
9	120	61	60	238	122	1460	210	321	180	60	41	32
10	117	60	67	250	120	1350	108	290	177	35	41	32
11	117	57	67	220	132	1150	167	254	170	31	41	32
12	114	54	65	195	129	1010	232	232	165	32	43	32
13	159	50	63	182	118	875	325	215	165	32	42	32
14	187	47	60	167	122	778	862	207	139	32	44	38
15	167	44	45	154	118	705	875	205	115	32	44	32
16	151	43	33	141	114	626	754	115	112	32	44	32
17	136	42	33	132	111	581	631	31	109	31	44	32
18	120	45	34	125	109	522	522	32	106	31	42	32
19	112	52	35	117	108	452	508	36	86	31	49	32
20	106	77	35	112	100	420	432	41	43	31	41	32
21	103	93	36	114	90	461	349	48	28	31	40	32
22	99	84	36	114	67	526	356	54	29	31	40	33
23	96	77	36	112	30	601	367	60	32	31	40	32
24	91	70	36	112	31	766	378	254	33	31	39	32
25	86	61	37	114	31	1060	389	671	34	31	39	32
26	81	55	39	114	35	1570	389	1030	37	52	38	32
27	81	68	41	112	43	1710	549	1090	36	53	36	32
28	81	81	41	111	52	1370	772	936	39	53	35	33
29	77	72	41	111	---	1120	823	862	40	54	33	33
30	72	65	41	109	---	936	823	889	42	54	32	32
31	65	---	41	111	---	791	---	895	---	55	32	---
TOTAL	3404	1792	1441	4505	2730	22437	15472	11189	4849	1986	1319	981
MEAN	110	59.7	46.5	145	97.5	724	516	361	162	64.1	42.5	32.7
MAX	187	93	67	250	154	1710	875	1090	842	290	56	42
MIN	65	42	33	41	30	42	108	31	28	31	32	32

CAL YR 1978 TOTAL 81381 MEAN 223 MAX 1400 MIN 22
WTR YR 1979 TOTAL 72105 MEAN 198 MAX 1710 MIN 28

01151500 OTTAUQUECHEE RIVER AT NORTH HARTLAND, VT

LOCATION.--Lat 43°36'09", long 72°21'17", Windsor County, Hydrologic Unit 01080106, on left bank 100 ft (30 m) upstream from highway bridge at North Hartland, 0.3 mi (0.5 km) downstream from North Hartland Dam, and 1.2 mi (1.9 km) upstream from mouth.

DRAINAGE AREA.--221 mi² (572 km²).

PERIOD OF RECORD.--Discharge: October 1930 to current year.
Water-quality records: Water years 1954-55.

GAGE.--Water-stage recorder. Datum of gage is 336.77 ft (102.647 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by powerplants upstream and by North Hartland Reservoir (Reservoir in Connecticut River basin) since March 1961; greater regulation by powerplants prior to 1958. Small seasonal storage in reservoir at Plymouth. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--49 years, 399 ft³/s (11.30 m³/s), 24.52 in/yr (623 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,400 ft³/s (691 m³/s) Sept. 21, 1938, gage height, 17.68 ft (5.389 m), from rating curve extended above 6,200 ft³/s (180 m³/s) on basis of computations of flow over dams at gage heights 15.58 ft (4.749 m), 17.68 ft (5.389 m), and 21.5 ft (6.55 m); minimum, 2.9 ft³/s (0.082 m³/s) July 31, 1933; minimum daily, 3.8 ft³/s (0.11 m³/s) July 3, 1933. Maximum discharge since construction of North Hartland Dam in March 1961, 6,170 ft³/s (175 m³/s) Mar. 17, 1977, gage height, 8.67 ft (2.643 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1760, 21.5 ft (6.55 m) in November 1927, from floodmarks, discharge 30,400 ft³/s (861 m³/s), by computation of peak flow over dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,170 ft³/s (146 m³/s) Mar. 26, gage height, 8.05 ft (2.454 m); minimum, 4.7 ft³/s (0.13 m³/s) Nov. 6, July 11; minimum daily, 6.5 ft³/s (0.18 m³/s) Mar. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	138	130	115	205	190	2190	1110	650	168	87	86
2	47	101	120	700	190	170	2010	885	575	218	95	52
3	56	111	100	2380	185	255	1780	770	488	297	95	34
4	53	115	64	1120	175	190	1770	981	471	312	95	31
5	56	115	54	400	170	400	1530	787	401	198	61	31
6	130	90	86	300	165	548	1120	617	384	130	46	73
7	165	96	100	250	160	7.2	993	468	384	115	45	394
8	164	96	135	330	155	6.7	931	477	321	81	45	433
9	83	96	225	300	150	6.5	847	515	267	68	44	105
10	52	96	260	250	150	329	823	510	259	68	39	105
11	68	96	240	225	150	729	775	461	259	69	36	104
12	71	96	215	205	145	1660	682	446	301	77	57	90
13	87	95	180	180	145	2950	877	379	311	77	80	73
14	111	93	145	180	140	3430	1050	346	309	144	98	54
15	266	93	115	230	140	3210	1010	343	271	69	137	53
16	334	93	105	235	140	2240	1010	331	207	64	151	76
17	301	112	100	215	135	1100	1040	231	142	64	143	89
18	188	150	95	190	135	925	1060	160	134	64	73	89
19	104	164	86	180	135	890	1070	155	151	72	60	99
20	135	171	80	170	135	743	1060	158	165	76	60	115
21	158	170	90	200	135	882	1070	206	153	76	79	123
22	117	168	110	235	135	1230	1170	218	138	76	69	122
23	103	166	115	320	140	1770	1340	218	134	66	61	104
24	135	165	115	380	155	2530	1710	483	134	61	60	68
25	150	163	110	340	235	2940	1830	1830	124	61	60	61
26	149	155	110	290	230	3890	1800	3260	111	48	47	66
27	174	105	105	260	170	4640	2450	3170	81	42	40	66
28	212	92	105	245	225	3300	2370	1120	71	63	40	66
29	212	100	100	240	---	1530	2030	1570	92	74	40	66
30	223	120	94	230	---	1340	1630	1380	129	74	81	66
31	227	---	92	215	---	1660	---	726	---	72	102	---
TOTAL	4357	3621	3781	11110	4530	45691.4	41028	24311	7617	3144	2226	2994
MEAN	141	121	122	358	162	1474	1368	784	254	101	71.8	99.8
MAX	334	171	260	2380	235	4640	2450	3260	650	312	151	433
MIN	26	90	54	115	135	6.5	682	155	71	42	36	31
MEAN †	143	103	121	358	163	1478	1362	798	262	98.1	71.1	97.9
CFSM †	.65	.47	.55	1.62	.74	6.69	6.16	3.61	1.19	.44	.32	.44
IN. †	.75	.52	.63	1.87	.77	7.71	6.88	4.17	1.32	.51	.37	.49

CAL YR 1978 TOTAL 147068.0 MEAN 403 MAX 2960 MIN 26 MEAN† 403 CFSM† 1.82 IN† 24.77
WTR YR 1979 TOTAL 154410.4 MEAN 423 MAX 4640 MIN 6.5 MEAN† 423 CFSM† 1.91 IN† 25.99

† Adjusted for change in contents in North Hartland Reservoir.

01152500 SUGAR RIVER AT WEST CLAREMONT, NH

LOCATION.--Lat 43°23'15", long 72°21'45", Sullivan County, Hydrologic Unit 01080104, on right bank 0.2 mi (0.3 km) downstream from Redwater Brook at West Claremont and 2.4 mi (3.9 km) upstream from mouth.

DRAINAGE AREA.--269 mi^2 (697 km^2).

PERIOD OF RECORD.--Discharge: May 1928 to current year. Published as "at Claremont" prior to October 1928. Water-quality records: Water year 1954.

REVISED RECORDS.--WSP 711: 1930(M). WSP 756: Drainage area. WSP 1901: 1960 (adjusted figures only).

GAGE.--Water-stage recorder. Datum of gage is 358.78 ft (109.356 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Oct. 1, 1928, nonrecording gage at site 0.8 mi (1.3 km) upstream at different datum.

REMARKS.--Records good except those for winter period and those for period of no gage-height record Aug. 17 to Sept. 30, which are fair. Regulation by Sunapee Lake 25 mi (40 km) upstream (Reservoirs in Connecticut River basin) and occasional diurnal fluctuation at low flow by mills upstream; greater regulation by mills prior to 1971.

AVERAGE DISCHARGE.--51 years, 405 ft^3/s (11.47 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,000 ft^3/s (396 m^3/s) Mar. 19, 1936, gage height, 10.92 ft (3.328 m), from rating curve extended above 6,700 ft^3/s (190 m^3/s) on basis of computations of flow over dam at gage heights 10.49 ft (3.197 m) and 10.92 ft (3.328 m); maximum gage height, 11.80 ft (3.597 m) Mar. 12, 1936, ice jam; minimum daily discharge, 14 ft^3/s (0.40 m^3/s) Aug. 26, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft^3/s (85 m^3/s) and maximums (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 7	0430	3400	96	a*6.36	1.939	May 25	1930	3490	98.8	5.57	1.698
Mar. 25	1800	*4200	119	6.07	1.850						

a Ice jam.

Minimum daily discharge, 56 ft^3/s (1.59 m^3/s) Sept. 5.

DISCHARGE, STREAM (CUBIC FEET PER SECOND), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	95	91	145	170	230	1450	1050	1440	112	73	70
2	66	90	87	459	165	241	1470	802	1040	197	64	62
3	59	86	81	1530	160	241	1760	647	773	180	78	58
4	63	86	92	780	155	251	1700	734	610	141	71	57
5	72	86	97	500	150	411	1570	679	482	117	63	56
6	107	85	112	453	145	1400	1450	577	528	103	64	200
7	136	83	89	418	140	3250	1300	498	455	101	60	600
8	118	89	107	390	135	2900	1160	438	391	91	58	300
9	99	92	159	360	130	2300	1070	397	280	85	57	210
10	97	89	172	340	130	1900	1030	347	248	79	75	160
11	86	87	101	320	125	1970	984	312	230	76	131	130
12	89	86	114	360	120	1700	952	260	244	74	117	100
13	91	84	127	390	120	1350	965	239	248	74	106	90
14	109	82	119	400	115	1290	982	249	220	72	98	92
15	129	82	101	310	110	1490	1020	242	194	67	102	150
16	130	80	90	250	110	1170	1060	220	179	75	100	120
17	107	80	86	230	105	1030	1110	196	164	143	90	110
18	94	107	82	220	100	911	1120	180	151	92	86	100
19	92	130	78	220	99	831	1090	172	138	79	90	90
20	92	126	92	230	98	842	1040	169	125	75	100	85
21	91	113	114	260	97	954	1010	189	114	71	90	80
22	90	95	105	290	96	1250	1030	186	106	69	82	94
23	89	91	92	350	95	1730	1030	174	100	67	74	95
24	87	99	85	310	94	2440	1070	559	96	66	70	85
25	87	96	82	280	90	3740	1040	3100	92	65	69	80
26	89	78	95	260	270	3410	966	2730	88	71	68	78
27	107	78	92	240	300	2300	1020	1900	85	94	72	74
28	120	96	86	220	250	1670	1700	1470	83	86	86	70
29	112	89	84	210	---	1350	1860	2440	87	77	84	80
30	103	97	82	190	---	1220	1730	1900	90	79	79	90
31	96	---	80	180	---	1290	---	1820	---	76	75	---
TOTAL	2968	2757	3074	11095	3874	47062	36739	24876	9081	2854	2532	3666
MEAN	95.7	91.9	99.2	358	138	1518	1225	802	303	92.1	81.7	122
MAX	136	130	172	1530	300	3740	1860	3100	1440	197	131	600
MIN	59	78	78	145	90	230	952	169	83	65	57	56

CAL YR 1978 TOTAL 140055 MEAN 384 MAX 5000 MIN 56
WTR YR 1979 TOTAL 150578 MEAN 413 MAX 3740 MIN 56

01152800 BLACK RIVER AT COVERED BRIDGE, AT WEATHERSFIELD, VT

LOCATION.--Lat 43°23'55", long 72°31'14", Windsor County, Hydrologic Unit 01080106, on left bank 540 ft (165 m) downstream from covered bridge, 0.3 mi (0.5 km) west of Downers, and 1.7 mi (2.7 km) north of Perkinsville (Weathersfield Town Hall).

DRAINAGE AREA.--114 mi² (295 km²).

PERIOD OF RECORD.--December 1975 to current year.

GAGE.--Water-stage recorder. Datum of gage is 565.33 ft (172.313 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1977, at datum 2.00 ft (0.610 m) lower.

REMARKS.--Records good except those for winter period, which are poor. Several observations of water temperature and specific conductance were made during the year. Flow regulated by powerplant and mills upstream. High flow slightly affected by retarding reservoirs.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,400 ft³/s (323 m³/s) Mar. 14, 1977, gage height, 8.75 ft (2.667 m), present datum, from rating curve extended above 4,100 ft³/s (120 m³/s); maximum gage height, 11.81 ft (3.600 m) Mar. 6, 1979 (ice jam); maximum gage height unaffected by backwater, 10.64 ft (3.234 m), present datum, Aug. 10, 1976; minimum daily discharge, 15 ft³/s (0.42 m³/s) Aug. 19, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 30, 1973, reached a discharge of 15,100 ft³/s (428 m³/s), by slope-area measurement 2.4 mi (3.9 km) upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,500 ft³/s (71 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 6	2115	ice jam		*11.81	3.600	Mar. 25	0545	a8860	251	8.15	2.484
Mar. 7	0300	a*9860	279	8.40	2.560	May 25	1915	4210	119	6.65	2.027

a From rating curve extended above 4,100 ft³/s (120 m³/s).

Minimum daily discharge, 26 ft³/s (0.74 m³/s) Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	93	70	300	105	110	1360	613	347	93	41	35
2	49	86	74	1250	100	125	1200	487	275	128	41	32
3	53	80	70	1100	95	175	1300	406	252	100	38	33
4	52	75	65	556	92	500	1040	409	223	79	36	31
5	64	72	75	366	90	1100	832	364	193	68	33	29
6	86	69	85	287	86	1800	661	316	184	60	31	195
7	108	67	82	242	84	4100	530	266	170	53	29	313
8	64	69	80	220	82	1100	441	234	130	48	27	182
9	69	70	150	205	80	764	404	232	137	45	26	107
10	65	66	120	190	78	599	380	190	136	42	35	77
11	59	64	105	170	74	615	351	153	130	40	56	62
12	52	63	90	160	72	482	392	140	155	39	51	52
13	60	61	86	150	70	385	437	141	134	37	97	48
14	120	60	80	140	66	548	463	146	119	42	70	49
15	231	59	75	135	64	674	462	141	108	40	59	74
16	152	54	70	125	61	467	607	136	97	50	53	62
17	118	55	65	120	59	388	603	123	71	72	49	56
18	144	143	60	115	58	338	616	111	53	46	44	52
19	135	144	56	110	56	316	608	109	61	41	51	48
20	123	112	60	105	54	322	619	102	57	38	52	45
21	108	106	90	125	54	442	701	110	57	32	47	41
22	78	92	85	170	54	777	824	113	56	31	42	49
23	74	82	75	200	54	1340	1050	100	55	29	39	49
24	65	79	70	170	75	1880	1180	804	54	27	37	44
25	65	85	68	160	170	5930	1090	2820	51	27	37	41
26	69	80	67	150	150	2610	1040	1990	48	31	36	40
27	122	60	66	140	130	1190	1660	805	45	55	39	38
28	136	46	63	130	115	786	1720	616	43	51	47	37
29	117	56	61	120	---	621	1440	924	62	43	44	42
30	115	65	60	115	---	635	822	650	59	41	42	48
31	99	---	61	110	---	1060	---	465	---	41	39	---
TOTAL	2884	2313	2384	7636	2328	32179	24833	14216	3562	1569	1368	2011
MEAN	93.0	77.1	76.9	246	83.1	1038	828	459	119	50.6	44.1	67.0
MAX	231	144	150	1250	170	5930	1720	2820	347	128	97	313
MIN	32	46	56	105	54	110	351	100	43	27	26	29
CFSM	.82	.68	.68	2.16	.73	9.11	7.26	4.03	1.04	.44	.39	.59
IN.	.94	.75	.78	2.49	.76	10.50	8.10	4.64	1.16	.51	.45	.66

CAL YR 1978 TOTAL 90686 MEAN 248 MAX 1180 MIN 21 CFSM 2.18 IN 29.59
WTR YR 1979 TOTAL 97283 MEAN 267 MAX 5930 MIN 26 CFSM 2.34 IN 31.74

01153000 BLACK RIVER AT NORTH SPRINGFIELD, VT

LOCATION.--Lat 43°20'00", long 72°30'55", Windsor County, Hydrologic Unit 01080106, on right bank at North Springfield, 800 ft (250 m) downstream from North Springfield Dam, 1,300 ft (400 m) upstream from Great Brook, and 8.1 mi (13.0 km) upstream from mouth.

DRAINAGE AREA.--158 mi² (409 km²).

PERIOD OF RECORD.--Discharge: October 1929 to current year. October 1929 monthly discharge only, published in WSP 1301.
Water-quality records: Water years 1954-55.

REVISED RECORDS.--WSP 756: Drainage area. WSP 781: 1931(M), 1934(M).

GAGE.--Water-stage recorder. Datum of gage is 445.79 ft (135.877 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by powerplant and mills upstream and by North Springfield Reservoir (Reservoirs in Connecticut River basin) since November 1960. High flow slightly affected by retarding reservoirs since 1968. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--50 years, 291 ft³/s (8.241 m³/s), 25.01 in/yr (635 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft³/s (439 m³/s) Sept. 22, 1938, gage height, 17.68 ft (5.389 m), from rating curve extended above 3,200 ft³/s (91 m³/s) on basis of computations of flow over dams at gage heights 16.41 ft (5.00 m) and 17.68 ft (5.389 m); minimum daily, 7.0 ft³/s (0.20 m³/s) Nov. 13, 1973. Maximum discharge since construction of North Spingfield Dam in 1960, 3,550 ft³/s (101 m³/s) Apr. 11, 1962, gage height, 6.43 ft (1.960 m); maximum gage height, 7.24 ft (2.207 m) Apr. 6, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,340 ft³/s (94.6 m³/s) Mar. 26, gage height, 7.12 ft (2.170 m); minimum daily, 27 ft³/s (0.76 m³/s) July 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	120	100	112	150	150	1450	867	569	106	50	38
2	48	115	104	459	140	170	1380	737	370	190	48	35
3	66	99	91	1370	130	200	1450	591	383	158	60	37
4	58	95	87	1250	130	323	1660	635	341	117	48	35
5	79	87	115	555	125	1300	1440	544	297	48	41	32
6	91	85	124	400	120	935	1170	499	281	27	36	84
7	157	79	114	353	115	362	603	408	258	160	32	484
8	95	85	114	323	110	903	338	378	213	69	30	273
9	86	86	218	300	110	1030	941	331	210	57	29	157
10	82	81	180	270	110	1260	802	319	207	53	33	108
11	74	79	150	250	105	1340	489	273	200	50	60	80
12	68	72	130	230	100	1620	472	244	240	47	65	65
13	67	71	120	220	98	1940	494	237	216	44	119	53
14	98	71	110	200	94	1860	512	185	190	47	108	53
15	236	70	100	190	88	1560	531	226	160	56	76	84
16	222	65	95	180	85	720	564	216	147	47	64	78
17	167	63	95	170	83	638	664	196	119	126	56	64
18	185	126	88	160	80	562	1740	177	95	82	50	59
19	175	229	80	150	78	526	1620	175	88	60	59	51
20	164	143	74	150	76	545	888	161	86	53	60	46
21	150	140	80	190	75	687	947	168	80	43	56	43
22	108	123	100	220	75	1000	1050	174	76	41	52	53
23	99	104	95	250	76	1460	1240	152	74	37	46	54
24	88	106	87	230	85	1800	1370	479	71	35	41	48
25	87	110	85	220	150	2550	1320	1570	69	35	39	43
26	88	89	90	210	250	3030	1270	2790	62	38	38	41
27	88	65	84	190	200	3110	1780	2390	59	64	43	39
28	121	72	80	180	160	2850	2000	1110	60	72	53	38
29	123	80	78	170	---	1680	1780	1280	71	57	51	42
30	142	97	76	160	---	946	1180	973	80	53	47	48
31	120	---	78	150	---	1220	---	731	---	53	43	---
TOTAL	3472	2907	3222	9462	3198	38277	33145	19216	5372	2125	1633	2365
MEAN	112	96.9	104	305	114	1235	1105	620	179	68.5	52.7	78.8
MAX	236	229	218	1370	250	3110	2000	2790	569	190	119	484
MIN	40	63	74	112	75	150	338	152	59	27	29	32
MEAN†	114	95	104	306	114	1240	1099	622	177	68	53	79
CFSM†	.72	.60	.66	1.94	.72	7.85	6.96	3.94	1.12	.43	.34	.50
IN.†	.83	.67	.76	2.24	.75	9.05	7.76	4.54	1.25	.50	.38	.56

CAL YR 1978 TOTAL 121786 MEAN 334 MAX 2330 MIN 34 MEAN† 334 CFSM† 2.11 IN† 28.66
WTR YR 1979 TOTAL 124394 MEAN 341 MAX 3110 MIN 27 MEAN† 341 CFSM† 2.16 IN† 29.29

† Adjusted for change in contents in North Springfield Reservoir.

01153500 WILLIAMS RIVER AT BROCKWAYS MILLS, VT

LOCATION.--Lat 43°12'31", long 72°31'05", Windham County, Hydrologic Unit 01080107, on left bank 25 ft (7.6 m) upstream from highway bridge at Brockways Mills, 4 mi (6.4 km) downstream from Hall Brook, 4.6 mi (7.4 km) upstream from mouth, and 6 mi (9.7 km) northwest of Bellows Falls.

DRAINAGE AREA.--103 mi² (267 km²).

PERIOD OF RECORD.--Discharge: June 1940 to current year.
Water-quality records: Water years 1957, 1967-74.

REVISED RECORDS.--WSP 1031: 1943-44(P). WSP 1301: 1941-42(M).

GAGE.--Water-stage recorder. Datum of gage is 433.54 ft (132.143 m) National Geodetic Vertical Datum of 1929 (levels by private engineer).

REMARKS.--Records good except those for winter period and period of no gage-height record Jan. 23 to Apr. 3, which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--39 years, 174 ft³/s (4.928 m³/s), 22.94 in/yr (583 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,800 ft³/s (334 m³/s) Aug. 10, 1976, gage height, 15.85 ft (4.831 m), from rating curve extended above 3,300 ft³/s (93 m³/s) on basis of slope-area measurement at gage height 13.31 ft (4.057 m); minimum not determined, occurred Dec. 11, 1941, during period of ice effect; minimum daily, 3.6 ft³/s (0.10 m³/s) Aug. 27, 1949.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in September 1938 had greatest discharge since at least 1753, gage height, 22.7 ft (6.92 m), from floodmarks. Flood in November 1927 reached a stage possibly 2 ft (1 m) higher than that of September 1938 flood because of backwater from milldam, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,600 ft³/s (74 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 7	-	2670	75.6	a 7.08	2.158	May 25	2030	3820	108	8.47	2.582
Mar. 25	-	*5440	154	a10.14	3.091	May 29	0130	3010	85.2	7.50	2.286

a From peak-stage indicator.

Minimum discharge, 16 ft³/s (0.45 m³/s) Nov. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	32	38	25	78	100	1300	394	293	100	26	32
2	20	31	35	350	74	110	1200	325	236	113	26	30
3	20	30	28	595	70	200	1100	285	205	66	34	35
4	20	30	40	205	68	500	900	341	176	44	32	35
5	29	29	57	146	66	1000	708	285	154	39	29	31
6	62	29	57	122	65	2000	555	239	172	36	26	211
7	59	29	49	120	64	2500	434	209	130	32	24	176
8	36	37	54	180	62	1000	357	193	110	29	24	69
9	30	38	124	220	61	700	337	172	105	28	22	49
10	27	34	87	150	60	560	305	153	104	26	26	41
11	26	32	35	130	58	500	288	138	96	25	48	36
12	25	31	31	95	57	430	362	128	133	25	45	32
13	25	30	28	100	56	380	394	129	107	25	113	28
14	111	30	25	110	55	550	414	133	88	24	57	29
15	150	29	24	94	53	620	422	122	74	27	44	78
16	65	29	22	87	50	450	612	109	64	25	39	42
17	46	29	21	82	49	350	568	97	58	61	36	34
18	39	100	20	76	48	290	544	89	52	39	34	30
19	36	80	19	74	48	280	503	88	43	32	48	27
20	38	53	21	72	47	290	484	91	41	28	46	26
21	36	45	24	90	47	450	520	105	37	26	40	25
22	33	36	27	130	47	800	541	90	38	25	36	39
23	32	35	24	100	49	1500	646	76	34	23	32	37
24	34	42	22	86	70	2500	609	970	33	22	31	30
25	32	42	21	105	150	5000	515	2740	32	22	32	27
26	32	29	22	140	130	2500	451	1370	31	26	31	26
27	52	43	21	120	110	1100	934	590	30	47	44	25
28	49	38	20	110	100	750	976	643	29	35	77	24
29	40	41	19	98	---	600	1040	1500	39	29	44	30
30	36	39	19	88	---	700	528	547	36	27	40	31
31	33	---	18	82	---	1000	---	413	---	26	36	---
TOTAL	1292	1152	1052	4182	1892	29710	18547	12764	2780	1132	1222	1365
MEAN	41.7	38.4	33.9	135	67.6	958	618	412	92.7	36.5	39.4	45.5
MAX	150	100	124	595	150	5000	1300	2740	293	113	113	211
MIN	19	29	18	25	47	100	288	76	29	22	22	24
CFSM	.41	.37	.33	1.31	.66	9.30	6.00	4.00	.90	.35	.38	.44
IN.	.47	.42	.38	1.51	.68	10.73	6.70	4.61	1.00	.41	.44	.49

CAL YR 1978 TOTAL 60633 MEAN 166 MAX 2300 MIN 15 CFSM 1.61 IN 21.90
WTR YR 1979 TOTAL 77090 MEAN 211 MAX 5000 MIN 18 CFSM 2.05 IN 27.84

01154000 SAXTONS RIVER AT SAXTONS RIVER, VT

LOCATION.--Lat 43°08'14", long 72°29'17", Windham County, Hydrologic Unit 01080107, on right bank 130 ft (40 m) upstream from highway bridge, 0.8 mi (1.3 km) east of Saxtons River, 1.4 mi (2.3 km) upstream from Bundy Brook, and 3.9 mi (6.3 km) upstream from mouth.
DRAINAGE AREA.--72.2 mi² (187.0 km²).
PERIOD OF RECORD.--Discharge: June 1940 to current year.
Water-quality record: Water year 1957.
REVISED RECORDS.--WSP 1301: 1948-49(M).
GAGE.--Water-stage recorder. Datum of gage is 395.51 ft (120.551 m) National Geodetic Vertical Datum of 1929 (levels by private engineer).
REMARKS.--Records good except those for winter period and period of no gage-height record, Apr. 5 to May 24, which are fair. Occasional diurnal fluctuation at low flow prior to 1962; fluctuation more frequent prior to 1946. Several observations of water temperature and specific conductance were made during the year.
AVERAGE DISCHARGE.--39 years, 121 ft³/s (3.427 m³/s), 22.76 in/yr (578 mm/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,460 ft³/s (240 m³/s) Aug. 10, 1976, gage height, 14.06 ft (4.285 m), from rating curve extended above 2,000 ft³/s (57 m³/s) on basis of slope-area measurements at gage heights 10.51 ft (3.203 m), 11.37 ft (3.466 m), and 13.26 ft (4.042 m); minimum, 1.9 ft³/s (0.054 m³/s) July 25, 1949; minimum daily, 2.4 ft³/s (0.068 m³/s) Aug. 6, 1955.
EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1869, 17.9 ft (5.46 m) in September 1938, from floodmarks (discharge not determined).
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,750 ft³/s (50 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 6	2300	2030	57.5	7.47	2.277	May 25	2000	2550	72.2	8.15	2.484
Mar. 25	0600	*2940	83.3	8.61	2.624	May 29	0030	2900	82.1	8.56	2.609

Minimum discharge, 10 ft³/s (0.28 m³/s) Aug. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	19	21	28	43	50	518	250	221	66	15	16
2	13	18	20	266	40	45	570	220	179	72	15	15
3	12	18	21	471	38	60	673	200	154	45	15	21
4	12	18	21	186	36	89	520	210	132	34	14	20
5	16	18	28	130	35	279	450	180	115	31	13	17
6	30	17	31	103	35	1070	400	160	110	29	12	99
7	30	17	27	97	35	1260	320	140	91	25	12	100
8	20	23	28	110	34	607	300	130	82	23	11	40
9	16	23	61	150	34	449	260	110	79	21	11	27
10	15	21	50	100	34	377	250	100	76	19	14	23
11	15	20	38	70	33	476	230	95	73	17	19	21
12	14	18	30	55	33	329	240	85	95	16	25	19
13	15	17	25	58	32	245	260	85	77	16	58	18
14	48	17	23	62	32	293	270	84	66	16	29	21
15	85	16	22	56	32	302	300	80	59	15	23	66
16	41	16	22	50	32	220	400	75	53	32	20	32
17	28	16	21	47	32	195	380	65	48	73	18	25
18	23	41	19	45	31	178	350	60	45	33	17	22
19	22	39	17	44	31	174	330	60	44	25	23	20
20	22	28	19	43	31	197	320	61	40	20	24	18
21	21	23	23	50	31	298	350	62	37	19	21	18
22	20	20	26	90	31	479	370	55	34	17	18	39
23	19	22	23	65	31	732	430	50	32	16	16	33
24	19	23	20	55	35	992	400	800	30	16	16	25
25	18	24	20	74	50	2030	350	1760	29	16	16	22
26	18	17	20	90	100	904	300	900	27	20	16	21
27	30	22	19	70	75	508	600	400	26	28	21	20
28	29	22	18	62	60	356	650	600	26	20	39	19
29	23	22	18	56	---	307	700	1000	38	17	25	31
30	21	22	17	50	---	343	400	550	33	16	23	27
31	20	---	22	46	---	453	---	301	---	16	19	---
TOTAL	727	637	770	2879	1096	14297	11491	8928	2151	829	618	895
MEAN	23.5	21.2	24.8	92.9	39.1	461	396	288	71.7	26.7	19.9	29.8
MAX	85	41	61	471	100	2030	700	1760	221	73	58	100
MIN	12	16	17	28	31	45	230	50	26	15	11	15
CFSM	.33	.29	.34	1.29	.54	6.39	5.49	3.99	.99	.37	.28	.41
IN.	.37	.33	.40	1.48	.56	7.37	6.13	4.60	1.11	.43	.32	.46

CAL YR 1978 TOTAL 41861.5 MEAN 115 MAX 1740 MIN 9.6 CFSM 1.59 IN 21.57
WTR YR 1979 TOTAL 45718.0 MEAN 125 MAX 2030 MIN 11 CFSM 1.73 IN 23.56

01154500 CONNECTICUT RIVER AT NORTH WALPOLE, NH

LOCATION.--Lat 43°07'34", long 72°26'14", Cheshire County, Hydrologic Unit 01080104, on left bank at North Walpole, 100 ft (30 m) upstream from Saxtons River, 0.7 mi (1.1 km) downstream from Vilas Bridge between Bellows Falls, VT, and North Walpole, NH, and at mile 172.5 (277.6 km).

DRAINAGE AREA.--5,493 mi² (14,227 km²), includes that of Saxtons River.

PERIOD OF RECORD.--Discharge: March 1942 to current year.
Water-quality records: Water years 1954-55, 1971.

GAGE.--Water-stage recorder. Datum of gage is 218.63 ft (66.638 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records excellent except those for winter period, which are good. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes, Lake Francis, Moore and Comerford Reservoirs (Reservoirs in Connecticut River basin), and other reservoirs, combined usable capacity, about 24,800,000,000 ft³ (702,000,000 m³).

AVERAGE DISCHARGE.--37 years, 9,409 ft³/s (266.5 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 97,000 ft³/s (2,750 m³/s) Mar. 27, 1953, gage height, 30.37 ft (9.257 m); minimum daily, 115 ft³/s (3.26 m³/s) Aug. 31, 1952, Sept. 2, 1957.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1750, 43.8 ft (13.35 m) Mar. 19, 1936, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 73,100 ft³/s (2,070 m³/s) Mar. 7, gage height, 25.40 ft (7.742 m); minimum daily, 1,250 ft³/s (35.4 m³/s) July 21, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1340	6040	1710	1480	6000	5200	31700	21800	22500	2220	1700	2130
2	1320	4870	2330	9660	6700	5800	34200	19400	20500	6760	2130	1410
3	1480	6050	1310	26700	7000	6000	36400	16900	17300	5950	2330	1410
4	1270	1910	3890	21300	5400	6200	34500	17000	10600	2340	1510	2210
5	2400	1630	3950	16100	5200	6000	29600	15800	10500	4410	2230	5450
6	2300	4640	2910	14700	5800	20000	25400	15500	10600	3090	2530	6780
7	3070	2400	2590	12700	5800	68800	20900	12900	11600	2430	1600	5720
8	2860	2500	4340	13200	5900	70000	19100	12200	10400	1780	2410	7030
9	2440	2100	4220	12500	5900	62700	16500	11700	8900	4040	1920	2370
10	2940	1850	1920	7680	5400	54700	17100	10500	5930	3030	2030	3450
11	2510	1800	3900	6080	3600	51000	17300	10600	7200	1930	2190	3150
12	3740	3000	3910	5970	5000	43200	13800	11100	10500	3320	1420	3170
13	2940	4600	4510	6030	5800	33500	16700	6860	10400	3400	2650	4290
14	3130	2440	5080	3760	7000	35000	18200	7950	10300	1500	2230	6240
15	3680	2600	3740	5280	6900	37800	17800	9730	8760	1300	2110	2820
16	7190	2300	1530	7110	6100	31900	17400	7390	7080	3500	2490	2200
17	6550	4340	1570	6280	5200	27100	20000	6480	3480	3300	2320	4720
18	5200	4220	3330	5600	3000	23400	21800	4850	6600	2700	1400	3430
19	3670	1710	1750	5000	3800	20300	23600	4280	6980	1700	1400	2830
20	3740	4710	2090	3500	3100	19700	22400	3080	5550	2100	2680	2030
21	2000	4130	1330	5200	3900	19700	22400	5220	3180	1250	2680	3560
22	1310	6310	1320	4200	4300	25700	22200	7050	3460	1250	2200	2160
23	2980	1330	2380	6000	4500	32400	22800	6580	1670	3600	2360	1430
24	2650	4170	1720	8000	5800	41200	25300	9490	1360	4000	2490	2190
25	2360	1640	1340	7900	3500	58700	25400	26800	4690	1900	1410	1980
26	3550	1470	2880	5900	4700	63800	25400	39100	3690	1560	1400	2480
27	6690	6250	2300	6300	6000	55000	32400	29800	2140	1400	2970	2120
28	5140	3140	3110	4700	6500	43100	43200	22800	2400	1400	2940	2400
29	3520	2420	3260	6000	---	35000	44300	22200	1730	1370	3760	2170
30	4990	1410	2110	6500	---	27900	33800	23800	2210	1790	2810	1420
31	5180	---	1310	6200	---	27900	---	24800	---	1850	2910	---
TOTAL	104140	97980	83640	257530	147800	1058700	751600	443660	232210	82170	69210	94750
MEAN	3359	3266	2698	8307	5279	34150	25050	14310	7740	2651	2233	3158
MAX	7190	6310	5080	26700	7000	70000	44300	39100	22500	6760	3760	7030
MIN	1270	1330	1310	1480	3000	5200	13800	3080	1360	1250	1400	1410

CAL YR 1978 TOTAL 3349240 MEAN 9176 MAX 43900 MIN 1200
WTR YR 1979 TOTAL 3423390 MEAN 9379 MAX 70000 MIN 1250

01155050 CONNECTICUT RIVER AT WALPOLE, NH
(National stream-quality accounting network station)

LOCATION.--Lat 43°05'04", long 72°26'04", Cheshire County, Hydrologic Unit 01080104, near left bank on downstream end of bridge pier on State Highway 123 at Walpole, 2.6 mi (4.2 km) downstream from Cold River, and at mile 169.6 (272.9 km).

DRAINAGE AREA.--5,612 mi^2 (14,535 km^2).

PERIOD OF RECORD.--Water years 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: September 1975 to current year.
WATER TEMPERATURES: September 1975 to current year.

INSTRUMENTATION.--Water-quality monitor since September 1975.

REMARKS.--Discharge based on record for gaging station at North Walpole (station 01154500). Interruptions in the record were due to malfunction of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 175 micromhos Sept. 18, 1978; minimum recorded, 56 micromhos May 12, 1978.
WATER TEMPERATURES: Maximum recorded, 28.0°C July 30, Aug. 5, 1979; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 164 micromhos July 30, Aug. 7, 8; minimum recorded, 56 micromhos Jan. 4.
WATER TEMPERATURES: Maximum recorded, 28.0°C July 30, Aug. 5; minimum, 0.0°C on many days during winter period.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 25...	1200	6940	118	6.6	10.5	1.0	11.3	101	K110	K60
NOV 14...	1000	3280	113	7.5	8.0	2.0	11.0	93	500	32
DEC 27...	1045	3000	122	6.7	.5	1.0	--	--	40	K20
JAN 16...	1030	7590	94	6.9	.0	2.0	12.5	85	84	52
FEB 27...	1030	8340	102	6.5	.5	2.0	13.4	93	180	90
MAR 14...	1030	34900	67	6.6	1.0	4.0	14.9	105	--	71
APR 18...	1100	21300	83	7.0	5.0	2.0	12.6	98	290	76
MAY 16...	0950	10000	98	7.1	15.0	1.0	9.7	96	390	73
JUN 20...	1045	8390	120	7.3	20.5	1.0	9.2	101	330	K20
JUL 24...	0945	5350	128	7.5	25.0	1.0	7.8	93	150	180
AUG 22...	1230	3100	136	7.6	20.5	1.0	8.7	96	100	K16
SEP 11...	1030	6300	119	7.3	19.0	5.0	8.7	93	220	85

K, NON-IDEAL COLONY COUNT.

01155050 CONNECTICUT RIVER AT WALPOLE, NH--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT										
25...	47	8	16	1.8	5.5	1.3	39	--	9.4	7.3
NOV										
14...	45	10	15	1.8	5.8	1.2	35	--	9.2	7.8
DEC										
27...	48	14	16	2.0	7.5	1.6	34	--	10	11
JAN										
16...	37	12	12	1.7	5.4	1.0	25	--	9.1	7.1
FEB										
27...	34	11	11	1.6	6.8	1.0	23	--	9.0	10
MAR										
14...	30	12	9.7	1.3	4.1	.9	18	--	8.6	6.8
APR										
18...	35	13	12	1.3	3.9	.9	22	--	8.5	6.1
MAY										
16...	38	10	13	1.3	3.8	.9	28	--	8.4	6.5
JUN										
20...	49	12	17	1.7	5.5	1.2	37	--	9.4	8.7
JUL										
24...	55	10	19	1.8	5.4	1.2	45	2.8	8.1	9.1
AUG										
22...	50	8	17	1.8	5.7	1.3	42	2.1	8.1	11
SEP										
11...	47	6	16	1.7	5.2	1.3	41	4.0	7.7	7.6

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)
OCT										
25...	.1	3.9	67	69	.21	.01	.16	.17	.00	.19
NOV										
14...	.1	3.3	74	65	.26	.01	.19	.20	.01	.19
DEC										
27...	.1	4.8	79	73	.40	.07	.23	.30	.07	.23
JAN										
16...	.1	5.9	67	58	.39	.07	.14	.21	.08	.13
FEB										
27...	.1	6.2	72	60	.44	.07	.20	.27	.06	.21
MAR										
14...	.0	5.0	58	47	.35	.04	.23	.27	.03	.24
APR										
18...	.0	4.9	61	51	.24	.02	.09	.11	.00	.14
MAY										
16...	.1	4.5	67	55	.22	.02	.17	.19	.00	.19
JUN										
20...	.1	4.5	72	70	.01	.00	1.9	1.9	1.7	.23
JUL										
24...	.1	4.0	84	76	.14	.01	.27	.28	.04	.24
AUG										
22...	.1	3.3	83	74	.21	.01	.13	.14	.00	.43
SEP										
11...	.1	4.0	83	69	.16	.02	.22	.24	.00	.37

01155050 CONNECTICUT RIVER AT WALPOLE, NH--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 25...	.38	.01	.01	--	.6	2.9	1	19	100
NOV 14...	.46	.01	.00	4.0	--	--	2	18	100
DEC 27...	.70	.01	.01	3.0	--	--	4	32	100
JAN 16...	.60	.01	.01	--	.4	4.8	4	82	100
FEB 27...	.71	.01	.01	4.0	--	--	2	45	100
MAR 14...	.62	.06	.01	4.3	--	--	15	1410	100
APR 18...	.35	.01	.00	--	.2	3.4	9	518	67
MAY 16...	.41	.00	.02	2.4	--	--	14	378	71
JUN 20...	1.9	.01	.00	3.1	--	--	10	227	65
JUL 24...	.42	.02	.00	--	.2	4.0	2	29	100
AUG 22...	.35	.01	.00	3.6	--	--	1	8.4	100
SEP 11...	.40	.01	.00	2.2	--	--	2	34	100

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, SUS- PENDED RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDED RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, SUS- PENDED RECOV. (UG/L AS CR)
OCT 25...	1	0	0	0	0	7	1	6	20	20
JAN 16...	1	1	100	0	100	0	0	1	20	20
APR 18...	0	0	0	0	0	3	0	5	10	0
JUL 24...	1	0	0	0	20	9	9	0	20	0

DATE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, SUS- PENDED RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, SUS- PENDED RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 25...	0	1	1	0	4	3	1	180	120	60
JAN 16...	0	1	0	2	2	0	2	260	180	80
APR 18...	<10	1	0	1	2	0	3	260	210	50
JUL 24...	20	0	0	2	0	0	1	160	140	20

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, SUS- PENDED RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDED RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY SUS- PENDED RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)
OCT 25...	79	21	58	30	10	20	<.5	.0	<.5
JAN 16...	0	0	4	30	20	10	<.5	.0	<.5
APR 18...	77	25	52	30	10	20	<.5	.0	<.5
JUL 24...	9	9	0	50	50	0	<.5	.0	<.5

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

01155050 CONNECTICUT RIVER AT WALPOLE, NH--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT									
25...	0	0	0	0	0	0	10	0	10
JAN									
16...	0	0	0	0	0	0	20	10	10
APR									
18...	0	0	0	0	0	0	20	10	10
JUL									
24...	0	0	0	0	0	0	20	10	10

DATE	GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L)
OCT									
25...	--	<.8	<.4	1.7	<.4	1.6	<.4	.09	.19
APR									
18...	<.6	<.9	<.4	1.7	<.4	1.5	<.4	.03	.12

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, SEPTEMBER 1978 TO AUGUST 1979

PERIPHYTON

Dates of exposure	Length of exposure (days)	Biomass (g/m^2)		Chlorophyll a (mg/m^2)	Chlorophyll b (mg/m^2)	Sampling method
		Dry weight	Ash weight			
Sept. 21 to Oct. 25	34	27.5	25.4	35.9	6.96	Polyethelene strip
July 24 to Aug. 22	30	0.870	0.710	1.68	0.660	Polyethelene strip

01155050 CONNECTICUT RIVER AT WALPOLE, NH--Continued

QUALITATIVE AND QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, NOVEMBER 1978 TO SEPTEMBER 1979

PHYTOPLANKTON

DATE	NOV 14.78	MAR 14.79	MAY 16.79	JUN 20.79
TIME	1000	1030	0950	1045
TOTAL CELLS/ML	1300	450	730	8800
DIVERSITY: DIVISION	1.0	0.8	2.1	1.2
.CLASS	1.0	0.8	2.2	1.2
..ORDER	1.7	0.9	2.7	1.8
...FAMILY	2.3	0.9	3.0	2.1
....GENUS	2.7	0.0	0.0	2.2

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...COELASTRACEAE								
....COELASTRUM	--	-	--	-	--	-	480	5
...MICRACTINIACEAE								
....GOLENKINIA	--	-	--	-	--	-	540	6
...OOCYSTACEAE								
....ANKISTRODESMUS	100	8	14	3	29	4	--	-
....TETRAEDRON	--	-	14	3	--	-	--	-
...SCENEDESMACEAE								
....SCENEDESMUS	58	5	--	-	58	8	600	7
....TETRASTRUM	--	-	--	-	--	-	240	3
..VOLVOCALES								
...CHLAMYDOMONADACEAE	--	-	--	-	29	4	--	-
....CHLAMYDOMONAS	--	-	--	-	--	-	180	2
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	370#	30	14	3	86	12	600	7
....MELOSIRA	72	6	--	-	29	4	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	14	3	--	-	--	-
...DIATOMACEAE								
....DIATOMA	360#	28	14	3	--	-	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	100	8	--	-	--	-	--	-
....FRAGILARIA	72	6	--	-	--	-	60	1
....SYNEDRA	--	-	--	-	72	10	--	-
...NITZSCHIACEAE								
....NITZSCHIA	14	1	--	-	58	8	--	-
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...MALLOMONADACEAE								
....MALLOMONAS	--	-	--	-	14	2	--	-
...OCHROMONADACEAE								
....DINOBRYON	--	-	--	-	--	-	60	1
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	--	-	72	10	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	120	9	--	-	220#	29	5100#	58
..HORMOGONALES								
...OSCILLATORIACEAE	--	-	380#	84	--	-	--	-
....OSCILLATORIA	--	-	--	-	--	-	960	11
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	--	-	--	-	72	10	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

01155050 CONNECTICUT RIVER AT WALPOLE, NH--Continued

QUALITATIVE AND QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, NOVEMBER 1978 TO SEPTEMBER 1979--Continued

PHYTOPLANKTON

DATE TIME	JUL 24,79 0945		AUG 22,79 1230		SEP 11,79 1030	
TOTAL CELLS/ML	14000		2700		110000	
DIVERSITY: DIVISION	0.8		1.4		0.5	
.CLASS	0.8		1.4		0.6	
..ORDER	0.9		1.8		0.6	
...FAMILY	1.3		2.6		0.7	
....GENUS	1.4		3.1		0.8	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHARACIACEAE						
....SCHROEDERIA	*	0	14	1	--	-
...CHLOROCOCCACEAE						
....CHLOROCOCCUM	--	-	--	-	*	0
...HYDRODICTYACEAE						
....PEDIASTRUM	--	-	240	9	--	-
...MICRACTINIACEAE						
....GOLENKINIA	--	-	98	4	*	0
....MICRACTINIUM	150	1	430#	16	930	1
...OOCYSTACEAE						
....ANKISTRODESMUS	*	0	56	2	600	1
....CHLORELLA	--	-	--	-	*	0
....CHODATELLA	--	-	14	1	*	0
....DICTYOSPHAERIUM	170	1	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	*	0
....SELENASTRUM	77	1	--	-	--	-
....TREUBARIA	*	0	--	-	--	-
...SCENEDESMACEAE						
....ACTINASTRUM	210	1	--	-	--	-
....CRUCIGENIA	--	-	140	5	--	-
....SCENEDESMUS	130	1	--	-	1100	1
....TETRASTRUM	--	-	110	4	*	0
..TETRASPORALES						
...PALMELLACEAE						
....SPHAEROCYSTIS	100	1	110	4	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	--	-	110	4	--	-
...VOLVOCACEAE						
....PANDORINA	210	1	--	-	--	-
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	90	1	910#	34	2800	3
....MELOSIRA	--	-	170	6	600	1
....STEPHANODISCUS	220	2	--	-	--	-
..PENNALES						
...ACHNANTHACEAE						
....ACHNANTHES	*	0	14	1	--	-
...DIATOMACEAE						
....DIATOMA	--	-	--	-	*	0
...FRAGILARIACEAE						
....ASTERIONELLA	--	-	--	-	*	0
....FRAGILARIA	*	0	--	-	*	0
....SYNEDRA	--	-	14	1	*	0
...NAVICULACEAE						
....NAVICULA	--	-	--	-	*	0
...NITZSCHIACEAE						
....NITZSCHIA	*	0	--	-	*	0
...TABELLARIACEAE						
....TABELLARIA	--	-	--	-	*	0
.CHRYSOPHYCEAE						
..CHRYSOMONADALES						
...OCHROMONADACEAE						
....DINOBRYON	--	-	--	-	660	1
....OCHROMONAS	*	0	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE						
....CHROOMONAS	140	1	--	-	--	-
...CRYPTOMONADACEAE						
....CRYPTOMONAS	90	1	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

01155050 CONNECTICUT RIVER AT WALPOLE, NH--Continued

QUALITATIVE AND QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, NOVEMBER 1978 TO SEPTEMBER 1979--Continued

PHYTOPLANKTON

DATE	JUL 24,79		AUG 22,79		SEP 11,79	
TIME	0945		1230		1030	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....ANACYSTIS	*	0	220	8	99000#	91
..HORMOGONALES						
...NOSTOCACEAE						
....ANABAENA	520	4	--	-	--	-
...OSCILLATORIACEAE						
....OSCILLATORIA	11000#	82	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....TRACHELOMONAS	--	-	--	-	*	0
PYRRHOPHYTA (FIRE ALGAE)						
.DINOPHYCEAE						
..PERIDINIALES						
...GLENODINIACEAE						
....GLENODINIUM	*	0	14	1	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

01155050 CONNECTICUT RIVER AT WALPOLE, NH--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	97	91	94	122	119	120	142	130	137
2	---	---	---	103	97	100	123	114	120	142	103	124
3	---	---	---	113	103	108	116	109	112	114	66	92
4	---	---	---	118	113	115	112	105	108	79	56	67
5	---	---	---	118	114	115	121	112	115	88	69	77
6	---	---	---	116	109	113	127	121	124	85	75	80
7	---	---	---	110	108	109	128	124	126	86	77	82
8	154	150	151	111	108	110	125	119	122	88	77	81
9	154	151	153	113	110	112	117	110	113	79	65	74
10	151	149	150	120	114	117	115	109	112	88	65	78
11	151	148	149	125	120	123	115	112	113	92	83	89
12	150	145	148	124	110	121	116	113	115	96	85	92
13	145	137	141	112	110	111	118	111	116	99	96	98
14	---	---	---	113	112	113	111	104	107	101	96	99
15	127	122	124	113	111	112	109	101	104	100	90	96
16	132	125	128	118	112	114	106	102	104	104	91	96
17	135	131	133	119	105	115	107	103	104	109	103	106
18	133	128	129	105	100	103	108	105	106	107	96	102
19	128	127	128	110	106	109	111	109	110	104	95	99
20	127	123	125	114	108	111	113	111	112	108	103	105
21	123	122	123	116	109	114	121	113	116	108	106	108
22	124	122	123	117	108	112	120	117	118	108	106	107
23	126	122	124	123	120	122	122	119	120	111	106	108
24	126	123	124	124	107	114	129	123	126	116	111	114
25	124	114	118	112	109	111	131	129	129	115	107	111
26	115	114	115	111	108	109	130	120	127	118	109	114
27	119	108	115	109	107	108	122	119	121	110	105	108
28	119	108	112	119	110	112	126	120	123	111	105	109
29	125	119	122	120	112	117	132	126	130	115	90	111
30	122	99	113	121	113	117	133	127	130	---	---	---
31	99	92	97	---	---	---	130	127	128	---	---	---
MONTH	---	---	---	125	91	112	133	101	117	142	56	99

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JULY			AUGUST			SEPTEMBER	
1	---	---	---	142	136	139	152	142	147
2	---	---	---	143	137	140	151	141	144
3	---	---	---	145	135	140	155	146	150
4	---	---	---	156	138	147	154	134	141
5	---	---	---	163	148	157	141	132	137
6	---	---	---	158	142	149	139	133	136
7	---	---	---	164	149	156	146	130	137
8	---	---	---	164	137	155	130	118	124
9	136	127	132	153	144	149	142	127	136
10	135	130	132	156	145	151	142	132	136
11	133	131	132	153	143	149	138	115	125
12	140	134	136	151	148	150	124	111	117
13	144	141	142	150	138	142	122	111	117
14	143	138	141	148	139	144	121	117	119
15	139	137	139	149	143	145	132	121	126
16	138	135	137	148	134	140	138	128	133
17	139	137	138	140	134	136	135	107	124
18	141	139	140	143	135	140	118	108	113
19	146	139	142	147	142	144	121	111	115
20	159	140	149	149	137	143	132	120	127
21	162	156	158	143	136	140	135	126	131
22	156	149	154	144	139	142	131	115	124
23	149	143	147	150	139	144	129	124	126
24	146	141	143	146	140	143	125	117	123
25	148	141	145	161	141	149	125	117	120
26	147	143	145	160	148	152	127	114	119
27	149	142	144	153	133	142	127	116	122
28	155	148	151	143	134	139	128	124	126
29	159	149	154	144	139	141	128	122	125
30	164	142	156	150	137	143	134	125	129
31	146	137	140	148	141	144	---	---	---
MONTH	---	---	---	164	133	145	155	107	128
YEAR	164	56	124						

01155050 CONNECTICUT RIVER AT WALPOLE, NH--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	17.0	16.0	16.5	10.0	9.0	9.5	1.5	.5	1.0	1.0	.5	.5
2	17.0	16.0	16.5	9.5	8.0	9.0	1.5	.5	1.0	.5	.5	.5
3	16.5	15.0	16.0	9.5	8.5	9.0	.5	.0	.5	.5	.5	.5
4	15.5	14.5	15.0	10.0	8.0	9.0	1.0	.5	1.0	.5	.5	.5
5	15.5	14.5	15.0	10.0	8.0	9.0	1.5	1.0	1.0	.5	.5	.5
6	14.5	14.5	14.5	9.5	8.5	9.0	2.0	1.0	1.0	.5	.5	.5
7	15.0	14.0	14.5	9.5	9.0	9.0	1.5	.5	1.0	.5	.0	.5
8	14.0	13.5	14.0	9.0	9.0	9.0	1.0	1.0	1.0	.5	.5	.5
9	14.0	13.0	13.5	10.0	8.5	9.0	1.5	1.0	1.0	.5	.0	.5
10	14.0	12.5	13.0	10.0	8.5	9.0	1.5	1.0	1.0	.5	.0	.0
11	14.0	13.0	13.0	10.0	8.5	9.0	1.5	.5	1.0	.0	.0	.0
12	13.5	13.0	13.0	9.0	8.5	8.5	1.0	.5	1.0	.0	.0	.0
13	13.0	13.0	13.0	8.5	7.5	8.0	1.0	.5	.5	.0	.0	.0
14	13.0	12.5	13.0	9.0	8.0	8.0	1.0	.5	.5	.0	.0	.0
15	13.0	12.0	12.5	8.5	8.0	8.0	1.0	.5	.5	.0	.0	.0
16	12.5	11.5	12.0	8.5	7.5	8.0	1.0	.5	.5	.0	.0	.0
17	12.0	10.5	11.5	7.5	6.5	7.0	1.0	.5	.5	.0	.0	.0
18	11.0	10.0	10.5	7.5	7.0	7.5	1.0	.5	.5	.0	.0	.0
19	11.0	10.5	10.5	7.5	7.0	7.0	1.0	.5	.5	.0	.0	.0
20	11.0	10.5	11.0	7.0	6.0	6.5	.5	.5	.5	.0	.0	.0
21	12.0	10.0	11.0	6.0	5.0	5.5	1.0	.5	.5	.0	.0	.0
22	12.0	10.5	11.0	5.5	4.5	5.0	1.0	.5	.5	.0	.0	.0
23	11.5	11.0	11.5	4.5	3.5	4.0	1.0	.5	.5	.0	.0	.0
24	12.0	10.5	11.0	4.0	3.0	3.5	1.0	.5	.5	.0	.0	.0
25	11.5	10.5	11.0	4.0	3.0	3.5	.5	.5	.5	.0	.0	.0
26	11.0	10.5	11.0	2.5	1.5	2.0	1.0	.5	.5	.0	.0	.0
27	11.5	11.0	11.0	1.5	1.0	1.5	1.0	.5	.5	.0	.0	.0
28	11.0	10.0	10.5	1.0	.5	1.0	.5	.5	.5	.0	.0	.0
29	11.5	10.0	10.5	1.5	.5	1.0	.5	.5	.5	.5	.0	.0
30	10.5	9.5	10.0	2.0	1.0	1.5	.5	.5	.5	---	---	---
31	10.5	9.0	9.5	---	---	---	.5	.5	.5	---	---	---
MONTH	17.0	9.0	12.5	10.0	.5	6.5	2.0	.0	.5	1.0	.0	.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JULY			AUGUST			SEPTEMBER	
1	---	---	---	27.0	25.5	26.0	23.0	21.0	22.0
2	---	---	---	27.0	26.0	26.5	23.0	21.0	22.0
3	---	---	---	27.5	25.5	26.5	23.5	21.5	22.5
4	---	---	---	27.5	25.5	26.5	23.0	21.5	22.5
5	---	---	---	28.0	26.0	27.0	23.0	22.5	23.0
6	---	---	---	27.0	26.0	26.5	23.0	22.5	22.5
7	---	---	---	27.0	24.5	25.5	23.0	21.5	22.5
8	---	---	---	26.0	24.5	25.5	22.0	21.0	21.5
9	21.5	19.5	21.0	26.0	24.5	25.0	21.5	19.5	20.5
10	21.5	20.0	21.0	25.0	23.5	24.0	20.5	19.0	20.0
11	22.5	20.0	21.0	24.5	23.5	23.5	20.0	18.5	19.5
12	23.0	20.5	22.0	23.5	21.5	22.5	19.5	18.0	19.0
13	24.5	22.5	23.5	22.0	21.0	21.5	19.5	18.0	18.5
14	25.5	23.5	24.5	21.5	20.0	21.0	19.0	18.5	18.5
15	25.0	23.5	24.0	20.5	19.5	20.0	19.5	18.0	18.5
16	24.5	23.5	24.0	20.5	19.0	20.0	19.0	17.5	18.5
17	25.5	23.5	24.5	20.5	18.5	19.5	19.0	17.5	18.0
18	24.5	23.5	24.0	19.5	18.0	18.5	18.5	17.5	18.0
19	25.5	23.0	24.0	19.0	18.0	18.5	18.0	16.5	17.5
20	25.0	22.5	24.0	19.5	18.0	19.0	17.5	16.0	16.5
21	25.5	23.0	24.0	20.0	18.5	19.5	16.5	15.5	16.0
22	25.5	23.0	24.0	21.0	19.0	20.0	16.0	15.5	16.0
23	25.5	23.5	24.5	21.0	19.5	20.0	16.5	14.5	15.5
24	25.0	24.0	24.5	20.0	19.5	20.0	16.0	14.5	15.5
25	26.5	24.5	25.5	21.5	20.0	20.5	16.0	14.0	15.0
26	26.0	24.5	25.0	22.0	20.0	21.0	16.0	14.5	15.0
27	27.0	25.0	25.5	22.0	21.0	21.5	16.5	14.5	15.5
28	27.0	25.0	26.0	22.5	21.0	21.5	15.5	14.5	15.0
29	27.0	25.0	26.0	22.0	21.5	22.0	16.0	15.0	15.5
30	28.0	25.0	26.5	22.5	21.5	22.0	15.5	15.0	15.5
31	26.5	25.5	26.0	23.5	21.5	22.0	---	---	---
MONTH	---	---	---	28.0	18.0	22.5	23.5	14.0	18.5
YEAR	28.0	.0	12.0						

01155500 WEST RIVER AT JAMAICA, VT

LOCATION.--Lat 43°06'32", long 72°46'33", Windham County, Hydrologic Unit 01080107, on left bank 0.2 mi (0.3 km) upstream from highway bridge at Jamaica, 0.4 mi (0.6 km) upstream from Ball Mountain Brook, and 2.8 mi (4.5 km) downstream from Ball Mountain Dam, and at mile 26.2 (42.2 km).

DRAINAGE AREA.--179 mi^2 (464 km^2).

PERIOD OF RECORD.--Discharge: October 1946 to current year.
Water-quality records: Water year 1954.

GAGE.--Water-stage recorder. Altitude of gage is 640 ft (195 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by Ball Mountain Reservoir since 1961 (Reservoirs in Connecticut River basin). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--33 years, 370 ft^3/s (10.48 m^3/s), 28.07 in/yr (713 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,500 ft^3/s (835 m^3/s) Dec. 31, 1948, gage height, 14.87 ft (4.532 m), from rating curve extended above 9,800 ft^3/s (280 m^3/s), verified by slope-area measurement of peak flow; minimum, 0.94 ft^3/s (0.027 m^3/s) Sept. 23-25, 1968; minimum daily, 0.94 ft^3/s (0.027 m^3/s) Sept. 23, 24, 1968. Maximum discharge since construction of Ball Mountain Dam in 1961, 5,080 ft^3/s (144 m^3/s) Mar. 17, 1977, gage height, 9.27 ft (2.825 m); maximum gage height, 10.43 ft (3.179 m) Mar. 9, 1979, ice jam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,800 ft^3/s (136 m^3/s) May 25, gage height, 9.13 ft (2.783 m); maximum gage height, 10.43 ft (3.179 m), Mar. 9, ice jam; minimum discharge, 22 ft^3/s (0.62 m^3/s) July 9; minimum daily, 28 ft^3/s (0.79 m^3/s) Aug. 7-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	175	204	475	200	250	1880	743	483	102	48	72
2	31	172	151	1910	190	240	2130	441	389	147	88	72
3	31	148	107	3390	190	230	2330	296	339	170	87	74
4	32	137	150	1410	185	230	2380	425	239	168	86	72
5	33	134	299	819	180	1000	2230	538	197	166	85	72
6	159	132	377	600	175	1500	1540	529	198	96	52	339
7	645	128	256	550	175	800	742	373	197	53	28	1440
8	715	142	207	700	175	700	530	249	195	52	28	704
9	270	162	416	750	180	1400	586	142	193	66	28	222
10	259	156	580	600	180	1600	607	144	150	80	50	111
11	245	130	368	450	175	1750	558	144	131	47	67	59
12	228	100	277	300	170	2330	504	777	135	32	70	59
13	150	92	240	230	170	1800	513	562	133	66	73	59
14	201	94	190	300	170	1160	524	162	132	95	71	61
15	440	95	150	350	165	1120	530	161	130	94	71	68
16	460	95	160	380	165	971	747	108	129	94	71	64
17	424	96	180	320	165	694	962	99	127	66	71	63
18	327	181	170	290	160	509	1010	214	87	34	71	62
19	229	300	150	260	160	456	1010	246	62	33	72	84
20	186	324	160	250	165	458	1010	208	62	32	75	97
21	189	344	200	300	160	470	1090	163	61	32	73	97
22	185	290	180	400	160	606	1350	90	44	32	71	115
23	158	221	160	450	160	1420	1830	69	31	32	71	122
24	151	194	140	300	170	2370	2450	268	32	31	71	121
25	155	162	140	230	200	2610	2320	2290	32	32	71	83
26	155	122	150	480	370	1650	1940	4260	32	33	69	59
27	363	95	170	400	330	2770	2600	2990	32	34	74	58
28	523	154	160	300	280	3210	2510	2180	33	33	78	42
29	350	209	150	230	---	2520	2210	2000	35	33	74	40
30	267	197	150	210	---	1390	1190	1240	70	33	74	48
31	204	---	145	200	---	1260	---	661	---	33	73	---
TOTAL	7796	4981	6537	17834	5325	39474	41813	22772	4110	2051	2091	4639
MEAN	251	166	211	575	190	1273	1394	735	137	66.2	67.5	155
MAX	715	344	580	3390	370	3210	2600	4260	483	170	88	1440
MIN	31	92	107	200	160	230	504	69	31	31	28	40
MEAN†	218	165	208	590	197	1346	1319	746	141	64.3	67.7	159
CFSM†	1.22	0.92	1.16	2.30	1.10	7.52	7.37	4.17	0.79	0.36	0.38	0.89
IN.†	1.40	1.03	1.34	3.80	1.14	8.67	8.22	4.81	0.88	0.41	0.44	0.99

CAL YR 1978 TOTAL 133407 MEAN 365 MAX 3090 MIN 31 MEAN† 365 CFSM† 2.04 IN† 27.70
WTR YR 1979 TOTAL 159423 MEAN 437 MAX 4260 MIN 28 MEAN† 437 CFSM† 2.44 IN† 33.15

† Adjusted for change in contents in Ball Mountain Reservoir.

CONNECTICUT RIVER BASIN

01156000 WEST RIVER AT NEWFANE, VT

LOCATION.--Lat 42°59'43", long 72°38'13", Windham County, Hydrologic Unit 01080107, on left bank 400 ft (100 m) downstream from highway bridge, 1.0 mi (1.6 km) northeast of Newfane, and at mile 12.7 (20.4 km).

DRAINAGE AREA.--308 mi² (798 km²).

PERIOD OF RECORD.--Discharge: September 1919 to September 1923, October 1928 to current year.
Water-quality records: Water year 1954.
Water temperatures: October 1954 to September 1965.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1231: 1922-23, 1929-31(M).

GAGE.--Water-stage recorder. Datum of gage is 384.21 ft (117.107 m) National Geodetic Vertical Datum of 1929. Prior to June 27, 1931, nonrecording gage at site 600 ft (200 m) upstream and June 27, 1931, to Aug. 21, 1972, water-stage recorder on right bank 600 ft (200 m) downstream from highway bridge at same datum.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated since 1961 by Ball Mountain Reservoir and Townshend Reservoir 6.8 mi (10.9 km) upstream (Reservoirs in Connecticut River basin). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--55 years, 633 ft³/s (17.93 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 52,300 ft³/s (1,480 m³/s) Sept. 21, 1938, gage height, 22.81 ft (6.952 m), from floodmarks, from rating curve extended above 20,000 ft³/s (570 m³/s) on basis of contracted-opening measurement at gage height 19.3 ft (5.88 m) and slope-area measurements at gage heights 19.46 ft (5.931 m) and 22.81 ft (6.952 m); minimum, 7.6 ft³/s (0.22 m³/s) Aug. 24, 25, 26, 1962; minimum daily, 8.2 ft³/s (0.23 m³/s) Aug. 25, 1962. Maximum discharge since construction of Ball Mountain and Townshend Reservoirs in 1961, 10,300 ft³/s (292 m³/s) May 25, 1979, gage height, 10.07 ft (3.069 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1869, that of Sept. 21, 1938. Flood of Nov. 3, 1927, reached a discharge of 45,000 ft³/s (1,270 m³/s), gage height, 23.0 ft (7.01 m), from floodmarks, at nonrecording-gage site, from rating curve extended above 20,000 ft³/s (570 m³/s) on basis of computation of peak flow over dam at West Dummerston, about 5 mi (8 km) downstream, adjusted for flow from intervening area.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,300 ft³/s (292 m³/s) May 25, gage height, 10.07 ft (3.069 m); minimum, 39 ft³/s (1.10 m³/s) July 24; minimum daily, 52 ft³/s (1.47 m³/s) Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	251	232	600	340	450	3070	1460	945	213	56	104
2	63	230	215	1500	330	430	3720	1200	683	280	70	103
3	63	219	149	4000	330	410	4280	611	614	260	89	114
4	63	190	151	3140	320	400	4290	737	465	234	89	128
5	64	187	271	1580	310	1030	3660	914	360	226	89	111
6	117	183	378	1030	310	2410	2650	865	350	204	89	575
7	795	180	338	956	310	1310	1690	729	325	126	68	2080
8	720	180	270	1220	310	1250	850	540	317	100	59	1190
9	378	207	494	1380	305	2280	959	412	302	95	53	388
10	322	212	782	1060	305	2710	1040	382	274	101	52	221
11	307	205	657	836	300	3120	982	373	222	104	65	153
12	292	167	430	497	300	3890	940	811	235	77	92	120
13	257	148	400	387	300	4370	1040	737	233	66	176	114
14	283	146	320	505	300	3590	1060	406	214	93	159	112
15	666	143	260	644	290	2170	1060	333	200	119	140	185
16	622	143	270	665	290	1660	1290	310	181	121	117	157
17	541	140	310	597	290	1310	1590	281	178	160	112	130
18	461	243	280	500	290	1010	1780	254	172	133	106	119
19	344	406	240	460	290	791	1780	253	130	94	113	114
20	275	408	300	430	290	828	1780	302	113	77	137	122
21	272	400	350	600	280	933	1910	316	108	69	132	124
22	268	384	320	700	280	1340	2070	274	107	63	116	165
23	248	315	260	800	280	2560	2570	212	95	61	108	211
24	221	279	240	500	280	4180	3930	1260	92	57	104	188
25	221	252	250	400	350	5900	4080	6560	82	56	105	167
26	221	191	270	850	700	3150	3310	7860	74	58	104	120
27	367	176	290	700	580	4220	4450	5570	73	65	104	107
28	670	115	270	550	500	5420	4880	3320	72	65	118	103
29	557	193	260	400	---	5000	4230	4140	133	63	122	96
30	372	218	250	360	---	4000	2500	2500	128	59	113	116
31	331	---	250	350	---	2420	---	1220	---	56	109	---
TOTAL	10444	6711	9757	28197	9360	74542	73441	45142	7477	3555	3166	7737
MEAN	337	224	315	910	334	2405	2448	1456	249	115	102	258
MAX	795	408	782	4000	700	5900	4880	7860	945	280	176	2080
MIN	63	115	149	350	280	400	850	212	72	56	52	96

CAL YR 1978 TOTAL 234272 MEAN 642 MAX 5310 MIN 63
WTR YR 1979 TOTAL 279529 MEAN 766 MAX 7860 MIN 52

01157000 ASHUELOT RIVER NEAR GILSUM, NH

LOCATION.--Lat 43°02'21", long 72°16'14", Cheshire County, Hydrologic Unit 01080201, on right bank 50 ft (15 m) downstream from White Brook, 60 ft (18 m) upstream from stone-arch bridge just off Keene-Newport Road, 0.7 mi (1.1 km) downstream from Gilsum, and at mile 43.4 (69.8 km).

DRAINAGE AREA.--71.1 mi² (184.1 km²).

PERIOD OF RECORD.--Discharge: August 1922 to current year.
Water-quality records: Water year 1955.

REVISED RECORDS.--WSP 661: Drainage area. WSP 781: 1934(M). WSP 1231: 1923-27(M), 1928, 1929-30(M), 1931, 1932(M).

GAGE.--Water-stage recorder. Datum of gage is 772.86 ft (235.568 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Oct. 1, 1964, datum was 1.00 ft (0.305 m) higher.

REMARKS.--Records fair except those for winter period and periods of no gage-height record, Jan. 5 to Feb. 23, Mar. 7 to Apr. 5, which are poor. Some regulation by reservoir upstream. Prior to 1938, diurnal fluctuation caused by powerplant upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--57 years, 127 ft³/s (3.600 m³/s), 24.26 in/yr (616 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,220 ft³/s (148 m³/s) Sept. 21, 1938, gage height, 12.24 ft (3.731 m) in gage well, present datum, from rating curve extended above 2,000 ft³/s (57 m³/s) on basis of float measurements at gage heights 11.66 ft (3.554 m) and 11.72 ft (3.572 m) and slope-area measurement at gage height 12.24 ft (3.731 m), all at present datum; maximum gage height, 13.80 ft (4.206 m) present datum, Mar. 19, 1936; minimum discharge, about 1 ft³/s (0.03 m³/s) Oct. 6, 1922, July 10, 1923, Nov. 14, 1952.
Maximum discharge since at least 1859, that of Sept. 21, 1938.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 3	0615	1190	33.7	6.93	2.112	Mar. 25	--	*2000	57	--	--
Mar. 8	--	1700	48	--	--	May 25	1230	1500	42.5	7.67	2.338

Minimum discharge, 7.7 ft³/s (0.22 m³/s) Oct. 1-5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	25	25	45	140	120	430	380	400	50	30	68
2	7.7	23	26	250	130	105	480	275	330	65	27	51
3	7.7	21	26	1050	120	95	500	217	280	47	26	72
4	7.7	20	25	641	110	86	470	215	250	41	24	63
5	8.3	19	27	450	105	180	440	203	250	35	23	47
6	21	18	28	350	100	400	350	182	220	30	20	64
7	24	17	29	300	95	900	306	156	190	27	18	94
8	20	21	31	400	88	1500	249	136	150	25	17	83
9	18	22	40	300	83	1000	224	118	130	23	16	68
10	17	21	50	270	79	500	225	105	105	22	15	54
11	16	20	56	230	75	850	210	93	95	23	16	46
12	16	20	60	200	70	730	215	84	86	22	25	50
13	16	19	55	170	66	680	238	81	80	21	50	35
14	21	19	53	150	64	600	257	99	70	21	38	33
15	25	19	50	140	60	700	268	100	62	21	35	54
16	23	18	46	125	58	600	294	90	55	21	31	44
17	26	17	43	120	56	450	315	81	50	45	29	37
18	22	22	40	110	54	410	305	74	42	90	29	34
19	21	22	38	105	52	380	287	71	39	70	35	32
20	21	22	36	100	51	400	276	68	36	55	34	30
21	20	22	34	190	50	440	276	68	34	45	30	32
22	19	22	32	180	49	500	291	67	31	36	29	151
23	19	22	31	160	48	800	311	62	30	32	28	150
24	20	23	28	150	52	1000	328	277	30	27	28	116
25	19	24	30	230	65	1700	342	1440	28	24	27	94
26	18	22	32	250	90	1500	339	1140	27	35	27	77
27	37	26	34	220	170	1100	406	663	26	65	30	61
28	39	24	34	190	140	800	670	488	32	58	30	51
29	35	23	32	180	---	500	749	410	35	48	68	105
30	29	24	31	160	---	370	545	400	28	41	121	119
31	27	---	30	150	---	400	---	410	---	36	93	---
TOTAL	628.1	637	1132	7566	2320	19796	10596	8253	3221	1201	1049	2015
MEAN	20.3	21.2	36.5	244	82.9	639	353	266	107	38.7	33.8	67.2
MAX	39	26	60	1050	170	1700	749	1440	400	90	121	151
MIN	7.7	17	25	45	48	86	210	62	26	21	15	30
CFSM	.29	.30	.51	3.43	1.17	8.99	4.97	3.74	1.51	.54	.48	.95
IN.	.33	.33	.59	3.96	1.21	10.36	5.54	4.32	1.69	.63	.55	1.05

CAL YR 1978 TOTAL 37440.8 MEAN 103 MAX 790 MIN 7.3 CFSM 1.45 IN 19.59
WTR YR 1979 TOTAL 58414.1 MEAN 160 MAX 1700 MIN 7.7 CFSM 2.25 IN 30.56

01158000 ASHUELOT RIVER BELOW SURRY MOUNTAIN DAM, NEAR KEENE, NH

LOCATION.--Lat 42°59'40", long 72°18'40", Cheshire County, Hydrologic Unit 01080201, on right bank 600 ft (200 m) downstream from Surry Mountain Dam, 2.5 mi (4.0 km) upstream from Sturtevant Brook, 4.5 mi (7.2 km) north of Keene, and at mile 34.0 (54.7 km).

DRAINAGE AREA.--101 mi² (262 km²).

PERIOD OF RECORD.--Discharge: September 1945 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 480.00 ft (146.304 m) Corps of Engineers datum.

REMARKS.--Records good. Flow regulated by Surry Mountain Lake (Reservoirs in Connecticut River basin). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--34 years, 175 ft³/s (4.956 m³/s), 23.53 in/yr (598 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,320 ft³/s (37.4 m³/s) Oct. 28, 1959, gage height, 9.60 ft (2.926 m); minimum daily, 0.4 ft³/s (0.011 m³/s) Sept. 17, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,140 ft³/s (32.3 m³/s) Mar. 30, gage height, 9.17 ft (2.795 m); minimum daily, 11 ft³/s (0.31 m³/s) Oct. 1-19, Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	40	12	38	116	222	985	741	760	30	32	87
2	11	37	12	130	107	200	852	702	695	58	33	69
3	11	35	12	507	92	150	830	594	669	65	31	72
4	11	32	12	791	82	146	731	393	722	54	25	75
5	11	30	12	777	82	130	742	322	691	42	21	65
6	11	28	12	738	82	148	872	278	608	34	18	72
7	11	27	12	628	75	44	817	242	381	28	14	110
8	11	28	13	498	69	24	783	189	202	25	13	102
9	11	27	29	510	69	355	748	81	143	23	11	87
10	11	27	56	383	69	726	753	229	113	20	12	126
11	11	27	66	279	69	679	699	158	98	18	16	140
12	11	26	76	201	69	77	478	130	95	18	20	132
13	11	24	81	177	55	918	384	116	87	17	40	128
14	11	24	81	178	40	953	373	124	77	15	50	83
15	11	24	81	177	40	940	396	133	68	14	47	53
16	11	23	71	141	48	925	413	126	61	17	41	53
17	11	22	65	114	57	908	440	111	54	24	35	53
18	11	25	65	95	57	1050	444	99	49	38	30	53
19	11	28	48	87	57	1020	446	89	42	60	34	53
20	12	29	39	87	57	908	423	83	37	45	38	34
21	16	30	39	88	56	1090	403	80	33	34	36	19
22	19	30	39	104	56	986	395	78	29	27	32	20
23	22	30	39	120	56	945	401	73	27	23	28	45
24	24	34	39	139	56	814	409	137	25	20	25	145
25	25	35	39	140	56	571	422	334	23	19	26	160
26	26	27	48	146	70	547	430	425	20	18	27	137
27	34	22	53	146	110	779	448	584	19	37	26	133
28	44	23	52	146	161	1000	596	681	18	45	30	129
29	50	16	52	144	---	1020	615	467	24	60	44	128
30	48	12	43	144	---	1120	741	714	25	53	103	128
31	44	---	38	136	---	1030	---	776	---	41	107	---
TOTAL	573	822	1336	7995	2013	20505	17469	9289	5895	1022	1045	2691
MEAN	18.5	27.4	43.1	258	71.9	661	582	300	197	33.0	33.7	89.7
MAX	50	40	81	791	161	1120	985	776	760	65	107	160
MIN	11	12	12	38	40	24	373	73	18	14	11	19
MEAN†	29.2	27.8	50.5	258	77.4	788	479	372	80.2	34.3	36.3	79.9
CFSM†	0.29	0.28	0.50	2.55	0.77	7.80	4.74	3.68	0.79	0.34	0.36	0.79
IN.†	0.33	0.31	0.58	2.94	0.80	8.99	5.29	4.25	0.89	0.39	0.41	0.88

CAL YR 1978 TOTAL 51682.1 MEAN 142 MAX 958 MIN 5.2 MEAN† 142 CFSM† 1.41 IN† 19.06
WTR YR 1979 TOTAL 70655.0 MEAN 194 MAX 1120 MIN 11 MEAN† 194 CFSM† 1.92 IN† 26.07

† Adjusted for change in contents in Surry Mountain Lake.

01158600 OTTER BROOK BELOW OTTER BROOK DAM, NEAR KEENE, NH

LOCATION.--Lat 42°56'45", long 72°14'14", Cheshire County, Hydrologic Unit 01080201, on right bank 450 ft (150 m) downstream from Otter Brook Dam, 2 mi (3 km) northeast of Keene, 2.4 mi (3.9 km) upstream from Minnewawa Brook, and 4.9 mi (7.9 km) upstream from mouth.

DRAINAGE AREA.--47.2 mi² (122.2 km²).

PERIOD OF RECORD.--May 1958 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 658.65 ft (200.757 m) Corps of Engineers datum.

REMARKS.--Records good. Flow regulated by Otter Brook Lake (Reservoirs in Connecticut River basin). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--21 years, 78.7 ft³/s (2.229 m³/s), 22.64 in/yr (575 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 685 ft³/s (19.4 m³/s) Apr. 20, 1959, gage height, 8.59 ft (2.618 m); maximum gage height, 8.61 ft (2.624 m) Apr. 26, 1972, Oct 20, 1977; minimum discharge, 0.1 ft³/s (0.003 m³/s) Nov. 28, 1959; minimum daily, 0.3 ft³/s (0.008 m³/s) Sept. 27 to Oct. 2, Oct. 9, 10, 12-20, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 616 ft³/s (17.4 m³/s) Mar. 19, gage height, 8.49 ft (2.588 m); minimum, 4.2 ft³/s (0.12 m³/s) Aug. 29; minimum daily, 6.2 ft³/s (0.18 m³/s) June 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	14	12	35	44	74	467	264	222	30	20	49
2	10	13	13	76	39	49	361	179	171	80	43	35
3	9.8	12	10	258	39	49	292	142	133	76	45	60
4	9.3	11	12	332	39	61	261	139	225	53	30	64
5	13	11	13	341	39	60	298	139	113	39	22	46
6	27	11	12	313	39	69	369	123	80	30	18	43
7	32	11	12	231	39	15	369	115	59	25	14	82
8	22	11	12	284	39	85	360	99	24	22	12	66
9	17	11	15	293	39	416	349	91	50	19	10	49
10	14	11	33	202	34	578	335	90	53	17	9.5	38
11	13	10	45	130	31	216	318	71	53	15	14	31
12	12	9.6	45	100	31	347	354	62	50	13	17	26
13	12	9.5	31	85	31	499	208	62	49	12	60	22
14	15	9.5	30	75	31	445	185	69	43	11	65	21
15	21	9.1	30	70	27	545	198	83	37	9.5	49	30
16	18	10	23	62	25	577	210	77	33	9.5	36	30
17	15	15	15	54	25	566	230	58	25	12	27	26
18	14	16	15	45	25	545	229	51	22	74	22	22
19	13	14	15	40	25	580	216	42	20	127	26	21
20	13	13	15	40	25	583	202	37	18	59	30	19
21	13	13	15	42	24	507	194	37	17	38	25	18
22	11	13	15	50	24	461	193	37	16	27	21	166
23	11	14	15	65	24	455	217	21	15	21	17	157
24	9.7	11	15	60	24	442	229	14	13	17	16	97
25	8.7	11	15	55	51	247	241	121	12	15	15	72
26	9.4	12	16	53	78	414	234	418	9.9	14	16	57
27	32	12	16	72	92	519	186	567	6.5	40	15	47
28	32	12	16	70	84	520	211	552	6.2	45	21	40
29	24	11	17	66	---	509	270	376	28	38	24	48
30	19	12	17	57	---	492	284	474	32	31	76	57
31	16	---	17	53	---	481	---	379	---	24	72	---
TOTAL	495.5	352.7	582	3709	1067	11406	8070	4989	1635.6	1043.0	887.5	1539
MEAN	16.0	11.8	18.8	120	38.1	368	269	161	54.5	33.6	28.6	51.3
MAX	32	16	45	341	92	583	467	567	225	127	76	166
MIN	8.7	9.1	10	35	24	15	185	14	6.2	9.5	9.5	18
MEAN†	16.0	11.8	19.5	119	38.3	402	233	165	51.0	33.5	29.7	50.9
CFSM†	.34	.25	.41	2.52	.81	8.52	4.94	3.50	1.08	.71	.63	1.08
IN.†	.39	.28	.48	2.90	.84	9.82	5.50	4.02	1.21	.82	.72	1.20

CAL YR 1978 TOTAL 24132.3 MEAN 66.1 MAX 546 MIN 2.1 MEAN† 56.1 CFSM† 1.40 IN† 19.01
WTR YR 1979 TOTAL 35776.3 MEAN 98.0 MAX 583 MIN 6.2 MEAN† 98.0 CFSM† 2.08 IN† 28.18

† Adjusted for change in contents in Otter Brook Lake.

01161000 ASHUELOT RIVER AT HINSDALE, NH

LOCATION.--Lat 42°47'07", long 72°29'12", Cheshire County, Hydrologic Unit 01080201, on left bank 40 ft (12 m) upstream from highway bridge at Hinsdale, 0.2 mi (0.3 km) downstream from dam, and 1.2 mi (1.9 km) upstream from mouth.

DRAINAGE AREA.--420 mi² (1,088 km²).

PERIOD OF RECORD.--Discharge: March 1907 to December 1911, July 1914 to current year.
Water-quality records: Water years 1953, 1958, 1968.

REVISED RECORDS.--WSP 661: Drainage area. WSP 781: 1907-10, 1914-34. WSP 1301: 1915(M), 1917-19(M), 1921-33(M). WSP 1701: 1920.

GAGE.--Water-stage recorder. Datum of gage is 201.32 ft (61.362 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Sept. 29, 1933, nonrecording gage on highway bridge at same datum.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by Surry Mountain Lake 33 mi (53 km) upstream since 1942 and by Otter Brook Lake 29 mi (47 km) upstream on Otter Brook since 1958 (Reservoirs in Connecticut River basin). Occasional diurnal fluctuation at low flow by mills upstream; greater regulation prior to 1952. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--69 years, 669 ft³/s (18.95 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,600 ft³/s (470 m³/s) Mar. 19, 1936, by computation of peak flow over dam; maximum gage height, 20.2 ft (6.16 m) Mar. 19, 1936, from floodmarks, backwater from Connecticut River; minimum discharge, 10 ft³/s (0.28 m³/s) Sept. 9, 1953; minimum daily, 12 ft³/s (0.34 m³/s) Sept. 15, 1929.
Maximum discharge since at least 1850, that of Mar. 19, 1936.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,010 ft³/s (170 m³/s) Mar. 9, gage height, 7.89 ft (2.405 m); minimum, 57 ft³/s (1.61 m³/s) Oct. 3, 4, 5; minimum daily, 58 ft³/s (1.64 m³/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	210	135	186	850	1060	3520	2220	2120	186	168	413
2	59	190	137	687	780	900	3140	1920	1760	357	154	305
3	59	180	133	2170	720	750	2860	1650	1530	380	166	284
4	62	176	131	2270	680	650	2680	1490	1410	295	155	378
5	68	158	146	2240	620	670	2670	1340	1480	230	136	317
6	95	145	152	2010	580	700	2650	1180	1340	189	117	290
7	168	138	152	1770	550	550	2500	1040	1220	166	105	542
8	150	150	154	1820	520	5600	2300	940	872	151	96	571
9	118	155	211	2090	480	4400	2100	756	666	139	89	405
10	102	154	320	1940	450	4270	1680	744	576	129	85	307
11	93	146	322	1510	430	4350	975	722	500	121	90	293
12	88	135	308	1140	410	4280	924	614	497	115	111	280
13	85	125	291	958	400	4250	807	579	454	110	216	258
14	80	118	267	842	370	4240	1290	623	384	104	345	259
15	76	115	245	806	360	4240	1710	656	344	98	300	251
16	74	111	243	773	340	4220	1750	629	317	99	243	229
17	72	110	221	706	340	4220	1840	539	270	243	195	210
18	70	126	205	643	330	4220	1760	455	262	246	163	191
19	68	151	221	601	330	3900	1650	417	238	511	163	181
20	71	146	221	578	320	3800	1510	400	209	407	176	180
21	80	138	202	704	320	3700	1400	386	192	275	180	173
22	95	131	203	960	320	3300	1330	363	176	221	155	410
23	110	126	185	950	320	3200	1300	332	166	184	136	850
24	125	134	170	940	330	3000	1300	767	156	154	125	656
25	135	146	173	1240	330	2700	1290	3570	148	138	119	551
26	150	142	172	1470	500	2560	1280	3700	137	146	137	457
27	175	123	172	1370	600	2690	1460	2960	128	266	139	392
28	220	117	167	1250	850	2930	2260	2390	122	380	150	354
29	250	118	161	1100	---	3190	2740	2300	118	293	173	362
30	240	127	163	987	---	3430	2540	2300	129	247	279	404
31	230	---	149	900	---	3850	---	2380	---	201	450	---
TOTAL	3526	4241	6132	37611	13430	95820	57216	40362	17921	6781	5312	10753
MEAN	114	141	198	1213	480	3091	1907	1302	597	219	171	358
MAX	250	210	322	2270	850	5600	3520	3700	2120	511	450	850
MIN	58	110	131	186	320	550	807	332	118	98	85	173

CAL YR 1978 TOTAL 208303 MEAN 571 MAX 3740 MIN 49
WTR YR 1979 TOTAL 299105 MEAN 819 MAX 5600 MIN 58

Reservoirs in Connecticut River basin

01127850; 01128000. **FIRST CONNECTICUT AND SECOND CONNECTICUT LAKES** on Connecticut River are operated as a unit for storage of water for power and are used for recreation. The downstream order and usable capacity of each are as follows: Second Lake, 12 mi (19 km) northeast of Pittsburg, NH, 506,000,000 ft³ (14,300,000 m³); First Lake, 5.6 mi (9.0 km) northeast of Pittsburg, NH, 3,330,000,000 ft³ (94,300,000 m³). Records furnished by New England Power Co.

01129000. **LAKE FRANCIS** on Connecticut River at Pittsburg, NH, completed in March 1940, used for storage of water for power and for recreation, has usable capacity of 4,326,000,000 ft³ (122,500,000 m³). Records furnished by New Hampshire Water Resources Board.

01132000; 01132500. **MOORE AND COMERFORD RESERVOIRS** on Connecticut River are operated as a unit for storage of water for hydroelectric power development and are used for recreation. The downstream order and usable capacity of each are as follows: Moore Reservoir, 4.5 mi (7.2 km) northwest of Littleton, NH, filled in April 1956, 4,970,000,000 ft³ (141,000,000 m³); Comerford Reservoir, 5 mi (8 km) northeast of Monroe, NH, completed in 1930, 1,279,000,000 ft³ (36,220,000 m³). Records furnished by New England Power Co.

01141000. **UNION VILLAGE RESERVOIR** on Ompompanoosuc River, 0.3 mi (0.5 km) north of Union Village, VT, completed in 1949 for flood control, has usable capacity of 1,660,000,000 ft³ (47,000,000 m³). Records furnished by Corps of Engineers.

01148000; 01150000. **LAKES AND PONDS IN MASCOMA RIVER BASIN** are operated as a unit for storage of water for power and are used for recreation. The reservoirs and usable capacity of each are as follows: 01148000 Goose Pond, 5.2 mi (8.4 km) northeast of Mascoma, NH, 509,000,000 ft³ (14,400,000 m³); Grafton Pond, 8.5 mi (13.7 km) southeast of Mascoma, 144,000,000 ft³ (4,080,000 m³); Crystal Lake, 5.8 mi (9.3 km) southeast of Mascoma, 75,000,000 ft³ (2,100,000 m³); 01150000 Mascoma Lake at Mascoma, 337,000,000 ft³ (9,540,000 m³); total usable capacity of the four reservoirs, 1,060,000,000 ft³ (30,000,000 m³). Records furnished by New Hampshire Water Resources Board.

01151400. **NORTH HARTLAND RESERVOIR** on Ottauquechee River at North Hartland, VT, completed in 1961, used for flood control and recreation, has usable capacity of 3,110,000,000 ft³ (88,100,000 m³). Records furnished by Corps of Engineers.

01152000. **SUNAPEE LAKE** on Sugar River at Sunapee, NH, used for recreation and storage of water for power, has usable capacity of 862,000,000 ft³ (24,400,000 m³). Records furnished by New Hampshire Water Resources Board.

01152900. **NORTH SPRINGFIELD RESERVOIR** on Black River at North Springfield, VT, completed in 1960, used for flood control and recreation, has usable capacity of 2,230,000,000 ft³ (63,200,000 m³). Records furnished by Corps of Engineers.

01155400. **BALL MOUNTAIN RESERVOIR** on West River, 2 mi (3.2 km) north of Jamaica, VT, completed in 1961, used for flood control and recreation, has usable capacity of 2,380,000,000 ft³ (67,400,000 m³). Records furnished by Corps of Engineers.

01155900. **TOWNSHEND RESERVOIR** on West River, 1.8 mi (2.9 km) northwest of Townshend, VT, completed in 1961, used for flood control and recreation, has usable capacity of 1,460,000,000 ft³ (41,300,000 m³). Records furnished by Corps of Engineers.

01157500. **SURRY MOUNTAIN LAKE** on Ashuelot River, 4.5 mi (7.2 km) north of Keene, NH, completed in 1942, used for flood control and recreation, has usable capacity of 1,420,000,000 ft³ (40,200,000 m³). Records furnished by Corps of Engineers.

01158550. **OTTER BROOK LAKE** on Otter Brook, 2.5 mi (4.0 km) northeast of Keene, NH, completed in 1958, used for flood control and recreation, has usable capacity of 798,000,000 ft³ (22,600,000 m³). Records furnished by Corps of Engineers.

MONTHEND USABLE CONTENTS, IN MILLIONS OF CUBIC FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

Date	First and Second Connecticut Lakes	Lake Francis	Moore and Comerford Reservoirs	Union Village Reservoir	Lakes and Ponds in Mascoma River basin	North Hartland Reservoir
Sept. 30, 1978	2764.8	3128.0	5516.2	2.2	837.1	122.0
Oct. 31	1475.7	3768.4	5918.1	1.8	656.2	128.0
Nov. 30	1015.4	3569.7	5234.5	14.5	624.5	82.6
Dec. 31	1000.6	2949.5	5606.2	15.4	655.3	79.3
Jan. 31, 1979	1147.7	2655.6	5411.2	16.2	694.1	79.3
Feb. 28	838.5	1294.8	3502.3	15.7	639.6	82.6
Mar. 31	1370.3	1534.7	3066.3	16.5	981.6	94.7
Apr. 30	2967.3	3026.6	3838.5	7.7	1107.5	80.6
May 31	3516.9	4121.1	6072.2	5.3	1182.5	118.0
June 30	3377.2	3654.6	5555.2	1.4	1091.0	138.0
July 31	3207.3	3497.6	4908.0	1.4	971.1	129.0
Aug. 31	3088.0	3162.8	5020.1	1.5	918.1	127.0
Sept. 30	2768.7	3022.7	5499.7	1.6	895.1	122.0

Date	Sunapee Lake	North Springfield Reservoir	Ball Mountain Reservoir	Townshend Reservoir	Surry Mountain Lake	Otter Brook Lake
Sept. 30, 1978	396	21.6	107.1	34.4	33.5	37.2
Oct. 31	311	27.6	16.8	39.0	62.1	37.2
Nov. 30	213	22.5	14.4	37.6	63.2	37.2
Dec. 31	196	22.5	7.9	37.2	83.0	39.3
Jan. 31, 1979	326	25.4	46.4	38.6	83.0	36.8
Feb. 28	301	24.7	62.0	39.7	96.4	37.2
Mar. 31	502	37.8	257.4	35.5	434.4	127.8
Apr. 30	564	23.3	63.8	43.3	165.7	34.0
May 31	668	28.4	95.7	48.8	359.9	43.8
June 30	595	24.0	107.1	36.2	58.5	34.8
July 31	561	23.3	102.0	34.1	62.1	34.4
Aug. 31	481	23.3	102.8	35.5	69.1	37.2
Sept. 30	422	23.3	114.9	35.5	43.6	36.2

01329000 BATTEN KILL AT ARLINGTON, VT

LOCATION.--Lat 43°04'38", long 73°09'26", Bennington County, Hydrologic Unit 02020003, on left bank 5 ft (1.5 m) upstream from bridge on Highway 313 at Arlington and 0.9 mi (1.4 km) downstream from Warm Brook.

DRAINAGE AREA.--152 mi² (394 km²).

PERIOD OF RECORD.--October 1928 to current year.

REVISED RECORDS.--WSP 756: Drainage area. WSP 851: 1936 (maximum gage height). WSP 1302: 1929-34(M).

GAGE.--Water-stage recorder. Datum of gage is 596.68 ft (181.868 m), revised, National Geodetic Vertical Datum of 1929. Prior to Nov. 18, 1941, nonrecording gage at downstream side of bridge at same datum.

REMARKS.--Records good except those for winter period, which are fair. Prior to 1949, diurnal fluctuation at low flow caused by mill upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--51 years, 341 ft³/s (9.657 m³/s), 30.47 in/yr (774 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,100 ft³/s (314 m³/s) Mar. 18, 1936, gage height, 11.3 ft (3.44 m), from floodmarks, present site, from rating curve extended above 6,100 ft³/s (170 m³/s) on basis of slope-area measurement at gage height 10.8 ft (3.29 m) and computation of peak flow over dam; minimum, 37 ft³/s (1.05 m³/s) Sept. 25, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,200 ft³/s (62 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 3	0030	*2810	79.6	8.26	2.518	Mar. 25	2100	2340	66.3	7.88	2.402
Mar. 7	0730	2350	66.6	7.89	2.405	Sept. 6	1930	2280	64.6	7.82	2.384

Minimum discharge, 63 ft³/s (1.78 m³/s) Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	254	167	380	231	228	1600	709	551	167	84	92
2	117	234	159	2030	215	234	1350	595	443	190	86	82
3	110	218	148	2300	215	231	1180	527	391	184	84	167
4	110	205	238	1200	211	255	1000	619	359	146	79	194
5	190	199	376	750	205	912	837	532	343	131	74	133
6	315	190	262	500	205	1700	709	456	355	126	72	889
7	343	184	228	370	205	2290	600	423	319	119	69	1290
8	218	211	252	1000	208	1760	532	415	288	113	69	615
9	175	215	514	772	205	1190	509	384	259	108	66	321
10	156	190	407	542	200	948	491	355	241	104	70	214
11	148	178	281	427	200	1160	486	331	238	100	102	156
12	138	172	259	363	200	1000	500	311	327	96	96	128
13	133	164	259	359	200	740	504	304	270	94	178	111
14	319	170	241	363	200	740	491	308	224	90	156	113
15	509	170	221	395	200	895	482	281	202	86	143	318
16	319	159	215	355	194	673	575	266	184	88	124	189
17	241	156	218	315	199	595	605	241	172	124	108	141
18	205	391	185	285	199	546	566	221	164	121	96	120
19	193	388	160	281	199	509	561	208	159	106	124	108
20	255	270	150	277	195	514	570	205	148	94	148	106
21	228	224	235	255	180	542	634	199	141	90	117	104
22	196	199	220	347	180	648	756	199	138	88	96	238
23	190	193	170	351	175	826	960	190	138	84	84	190
24	262	199	160	292	311	1130	1140	500	133	79	79	141
25	218	202	165	277	452	2010	1120	1690	131	81	90	124
26	215	159	202	300	335	2090	1200	1820	124	88	111	113
27	877	148	187	288	270	1380	1560	1100	119	208	105	106
28	600	167	175	281	238	912	1570	740	113	143	246	105
29	391	170	170	273	---	772	1360	1030	202	110	170	225
30	315	172	170	259	---	924	954	810	159	98	119	189
31	277	---	178	241	---	1360	---	709	---	90	111	---
TOTAL	8065	6156	6972	16428	6232	29714	25402	16678	7035	3546	3356	7022
MEAN	260	205	225	530	223	959	847	538	235	114	108	234
MAX	877	391	514	2300	452	2290	1600	1820	551	208	246	1290
MIN	102	148	148	241	175	228	482	190	113	79	66	82
CFSM	1.71	1.35	1.48	3.49	1.47	6.31	5.57	3.54	1.55	.75	.71	1.54
IN.	1.97	1.51	1.71	4.02	1.53	7.27	6.22	4.08	1.72	.87	.82	1.72

CAL YR 1978 TOTAL 115215 MEAN 316 MAX 1440 MIN 71 CFSM 2.08 IN 28.20
WTR YR 1979 TOTAL 136606 MEAN 374 MAX 2300 MIN 66 CFSM 2.46 IN 33.43

01334000 WALLOOMSAC RIVER NEAR NORTH BENNINGTON, VT

LOCATION.--Lat 42°54'47", long 73°15'25", Bennington County, Hydrologic Unit 02020003, on left bank 0.6 mi (1.0 km) downstream from Paran Creek and 1.4 mi (2.3 km) south of North Bennington.

DRAINAGE AREA.--111 mi² (287 km²).

PERIOD OF RECORD.--Discharge: June 1931 to current year.
Water-quality records: Water years 1953-54.

REVISED RECORDS.--WSP 781: 1933(M).

GAGE.--Water-stage recorder. Altitude of gage is 525 ft (160 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Occasional diurnal fluctuation at low flow caused by mills upstream; diurnal fluctuation greater prior to 1960. Diversion upstream for municipal supply of Bennington and North Bennington since 1961. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--48 years, 223 ft³/s (6.315 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,450 ft³/s (239 m³/s) Sept. 21, 1938, gage height, 12.04 ft (3.670 m), from rating curve extended above 2,800 ft³/s (79 m³/s) on basis of contracted-opening measurements at gage heights 10.13 ft (3.088 m), 10.49 ft (3.197 m), 11.50 ft (3.505 m), and 12.04 ft (3.670 m) and slope-area measurement and computation of flow over dam at gage height 12.04 ft (3.670 m); minimum, 4 ft³/s (0.1 m³/s) Sept. 27, 1932; minimum daily, 21 ft³/s (0.59 m³/s) Sept. 22, 23, 1964, July 12, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (57 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 2	1915	2730	77.3	6.55	1.996	Mar. 25	0545	2410	68.3	6.14	1.871
Mar. 6	2215	*3430	97.1	7.40	2.256	Sept. 6	1715	3300	93.5	7.21	2.198

Minimum discharge, 35 ft³/s (0.99 m³/s) Oct. 5; minimum daily, 42 ft³/s (1.19 m³/s) Oct. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	136	75	371	192	189	1130	432	225	114	65	58
2	44	123	74	2110	178	209	758	360	210	130	60	54
3	42	114	69	1160	162	216	659	328	200	105	84	287
4	43	107	123	517	145	312	556	385	190	86	63	133
5	59	102	178	375	145	1250	518	320	180	78	55	92
6	110	97	120	300	145	2260	450	277	170	74	59	1300
7	102	92	102	270	140	2150	381	251	152	68	63	801
8	71	120	138	673	140	1020	336	233	135	65	60	333
9	62	118	381	448	140	692	332	212	130	59	57	208
10	56	104	268	320	140	607	332	199	127	58	73	161
11	54	92	176	255	140	999	328	189	144	56	65	134
12	52	86	151	210	135	633	332	173	216	54	88	116
13	54	83	149	246	135	486	340	186	158	53	150	105
14	201	81	136	265	135	537	348	192	130	49	117	112
15	246	84	124	235	135	509	336	170	112	48	109	316
16	131	79	117	200	135	389	432	152	102	61	113	167
17	97	78	123	192	135	352	432	141	95	357	84	127
18	83	140	105	182	130	328	385	133	88	129	74	110
19	82	127	84	170	130	312	372	133	86	110	102	102
20	110	103	84	160	130	312	368	127	78	81	97	98
21	90	95	145	220	130	332	398	135	74	69	77	100
22	83	87	142	421	130	423	468	127	70	66	67	495
23	83	85	120	305	130	581	581	509	72	63	63	284
24	113	90	106	228	250	878	692	1320	74	81	56	180
25	89	91	105	663	400	1940	670	878	70	91	62	141
26	129	79	109	456	292	1070	670	472	65	93	67	122
27	876	66	102	348	230	627	1130	385	63	176	98	110
28	355	81	97	295	196	472	932	537	108	109	122	102
29	226	81	94	261	---	428	902	377	176	85	81	316
30	174	79	94	227	---	703	566	320	107	72	74	223
31	150	---	98	205	---	968	---	262	---	75	66	---
TOTAL	4110	2900	3989	12288	4625	22184	16134	9915	3799	2815	2471	6887
MEAN	133	96.7	129	396	165	716	538	320	127	90.8	79.7	230
MAX	876	140	381	2110	400	2260	1130	1320	225	357	150	1300
MIN	42	66	69	160	130	189	328	127	63	48	55	54

CAL YR 1978 TOTAL 67711 MEAN 186 MAX 2000 MIN 33
WTR YR 1979 TOTAL 92117 MEAN 252 MAX 2260 MIN 42

04280000 POULTNEY RIVER BELOW FAIR HAVEN, VT

LOCATION.--Lat 43°37'40", long 73°18'50", Rutland County, Hydrologic Unit 02010001, on right bank 0.3 mi (0.5 km) downstream from Carver Falls, 1.9 mi (3.1 km) upstream from Hubbardton River, and 3.2 mi (5.1 km) northwest of Fair Haven.

DRAINAGE AREA.--187 mi² (484 km²).

PERIOD OF RECORD.--Discharge: October 1928 to current year.
Water-quality records: Water year 1954.

REVISED RECORDS.--WSP 1114: 1929(M), 1932-35.

GAGE.--Water-stage recorder. Altitude of gage is 105 ft (32 m), from topographic map.

REMARKS.--Records fair except those for winter period and period of no gage-height record, Nov. 8 to Dec. 18, which are poor. Flow regulated by powerplant upstream and by Lake Bomoseen. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--51 years, 251 ft³/s (7.108 m³/s), 18.23 in/yr (463 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,800 ft³/s (419 m³/s) July 20, 1945, gage height, 24.36 ft (7.425 m), from high-water mark in well, from rating curve extended above 2,600 ft³/s (74 m³/s) on basis of computations of flow over dam at gage heights 16.10 ft (4.907 m), 21.40 ft (6.523 m), and 24.36 ft (7.425 m); minimum daily, 2.1 ft³/s (0.059 m³/s) Aug. 8, 1965, Sept. 13, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,600 ft³/s (74 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 2	2345	*4220	120	14.27	4.349	Mar. 7	unknown	3200	91	ice jam	

Minimum daily discharge, 6.6 ft³/s (0.19 m³/s) Aug. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	87	88	100	320	330	727	324	548	93	30	13
2	12	101	82	1800	310	330	667	263	426	411	35	21
3	14	314	95	2860	300	350	850	184	355	199	43	23
4	35	298	120	1250	310	500	756	153	306	144	15	44
5	11	268	190	1050	330	1000	636	146	232	90	29	49
6	33	258	160	890	320	2300	652	132	282	114	33	199
7	70	279	120	830	290	3000	572	149	172	85	30	521
8	44	268	130	840	280	2400	481	89	159	66	32	324
9	38	240	260	850	270	2000	417	108	149	52	33	258
10	37	210	220	840	260	1700	398	93	140	72	23	206
11	35	170	180	790	260	1900	411	86	258	47	51	90
12	36	110	140	710	260	1580	464	85	693	50	49	132
13	37	86	135	610	260	1280	451	83	539	45	40	66
14	73	88	130	520	260	1380	434	72	308	48	43	133
15	157	84	120	500	260	1750	518	76	160	40	40	395
16	104	82	115	450	260	1250	542	40	137	26	33	203
17	82	130	110	400	260	1120	675	69	94	178	38	166
18	70	160	105	390	260	1020	659	49	85	197	6.6	67
19	66	200	84	370	255	957	590	49	75	57	54	43
20	73	160	70	360	250	984	507	49	72	53	44	73
21	72	130	72	400	240	1000	445	55	78	13	42	64
22	66	110	76	430	230	1100	387	45	56	32	37	59
23	64	100	72	450	300	1190	276	45	61	56	36	59
24	80	105	62	390	450	1240	206	52	34	33	26	51
25	78	95	58	370	580	1370	192	777	76	28	15	49
26	72	85	62	390	500	1230	182	1280	36	25	19	48
27	149	77	64	380	400	984	192	652	40	40	44	39
28	184	85	80	370	340	834	230	735	39	36	48	180
29	132	89	90	360	---	737	282	714	54	9.5	64	70
30	111	90	94	340	---	682	369	657	28	43	45	71
31	108	---	86	330	---	706	---	796	---	25	35	---
TOTAL	2154	4559	3470	20620	8615	38204	14168	8307	5692	2407.5	1112.6	3716
MEAN	69.5	152	112	665	308	1232	472	268	190	77.7	35.9	124
MAX	184	314	260	2860	580	3000	850	1280	693	411	64	521
MIN	11	77	58	100	230	330	182	40	28	9.5	6.6	13
CFSM	.37	.81	.60	3.56	1.65	6.59	2.52	1.43	1.02	.42	.19	.66
IN.	.43	.91	.69	4.10	1.71	7.60	2.82	1.65	1.13	.48	.22	.74

CAL YR 1978 TOTAL 90012.0 MEAN 247 MAX 1970 MIN 11 CFSM 1.32 IN 17.91
WTR YR 1979 TOTAL 113025.1 MEAN 310 MAX 3000 MIN 6.6 CFSM 1.66 IN 22.48

04282000 OTTER CREEK AT CENTER RUTLAND, VT

LOCATION.--Lat 43°36'13", long 73°00'49", Rutland County, Hydrologic Unit 02010002, on right bank 500 ft (150 m) upstream from bridge on U.S. Highway 4 at Center Rutland, 200 ft (60 m) downstream from dam, 1.2 mi (1.9 km) downstream from East Creek, and 1.5 mi (2.4 km) west of Rutland.

DRAINAGE AREA.--307 mi^2 (795 km^2).

PERIOD OF RECORD.--Discharge: May 1928 to current year.
Water-quality records: Water years 1955, 1971.

REVISED RECORDS.--WSP 1084: 1929.

GAGE.--Water-stage recorder. Datum of gage is 474.80 ft (144.719 m) National Geodetic Vertical Datum of 1929; prior to Oct. 1, 1964, datum was 1.00 ft (0.305 m) higher. Prior to July 22, 1929, nonrecording gage at same site.

REMARKS.--Records good except those for periods of no gage-height record Oct. 30 to Dec. 20, Mar. 13 to Apr. 9, Apr. 16 to May 21, which are poor. Flow regulated by powerplants and Chittenden Reservoir 14 mi (22.5 km) upstream on East Creek, usable capacity, 819,800,000 ft^3 (23,220,000 m^3). Prior to June 3, 1947, regulation by East Pittsford Reservoir, usable capacity, 150,000,000 ft^3 (4,250,000 m^3). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--51 years, 554 ft^3/s (15.69 m^3/s), 24.51 in/yr (623 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,700 ft^3/s (388 m^3/s) Sept. 22, 1938, gage height, 13.45 ft (4.100 m), present datum, from rating curve extended above 7,400 ft^3/s (210 m^3/s) on basis of computation of peak flow over dam; minimum daily, 45 ft^3/s (1.27 m^3/s) Sept. 21, 1947, Aug. 7, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,400 ft^3/s (96 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 3	1630	3640	103	7.87	2.399	Mar. 26	--	4000	110	--	--
Mar. 7	0145	*5650	160	9.99	3.045						

Minimum daily discharge, 58 ft^3/s (1.64 m^3/s) Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	150	350	259	282	440	355	2900	1200	695	194	87	154
2	170	330	236	1970	415	360	2200	1030	542	420	91	86
3	165	300	149	3230	390	355	1900	920	485	270	133	88
4	160	290	246	2070	370	400	1650	980	450	178	94	138
5	260	280	374	1220	370	1200	1450	870	420	175	75	137
6	450	270	370	739	365	3250	1250	760	499	181	66	408
7	490	265	333	771	360	5070	1000	710	399	145	60	1260
8	360	290	427	838	355	3340	860	680	305	128	58	571
9	295	300	700	673	350	2160	780	660	275	123	63	286
10	270	275	590	560	350	1680	739	590	262	125	175	232
11	250	260	450	450	350	2140	702	550	333	123	274	182
12	240	245	370	440	350	1650	809	530	596	112	177	149
13	235	235	365	450	345	1500	835	500	451	102	247	170
14	450	240	340	470	340	1350	826	495	333	94	195	233
15	570	240	315	440	335	1600	875	490	294	89	154	375
16	500	230	310	430	330	1350	980	480	218	129	169	194
17	370	220	310	420	320	1150	1000	450	183	150	149	154
18	320	430	240	410	315	1050	930	420	211	150	114	134
19	290	450	180	400	305	950	920	395	214	121	160	140
20	330	400	160	390	295	950	1000	365	185	128	183	132
21	310	340	249	390	280	1040	1130	350	175	102	153	99
22	290	290	234	580	270	1300	1350	300	153	97	127	117
23	330	275	212	700	260	1650	1670	283	133	117	90	123
24	370	280	203	640	440	2800	1850	579	128	100	112	140
25	314	285	187	580	690	3700	1900	2190	153	112	109	141
26	282	240	243	610	600	3800	2100	2610	140	134	91	109
27	688	210	275	590	450	2500	2500	1900	122	185	125	122
28	653	228	225	560	380	1800	2530	1200	129	136	160	88
29	455	263	258	540	---	1400	2200	1600	210	121	140	168
30	410	280	210	520	---	1800	1600	1300	178	159	147	168
31	380	---	191	500	---	2500	---	850	---	98	150	---
TOTAL	10807	8591	9211	22863	10420	56150	42436	26237	8871	4498	4128	6498
MEAN	349	286	297	738	372	1811	1415	846	296	145	133	217
MAX	688	450	700	3230	690	5070	2900	2610	695	420	274	1260
MIN	150	210	149	282	260	355	702	283	122	89	58	86
CFSM	1.14	.93	.97	2.40	1.21	5.90	4.61	2.76	.96	.47	.43	.71
IN.	1.31	1.04	1.12	2.77	1.26	6.80	5.14	3.18	1.07	.55	.50	.79

CAL YR 1978 TOTAL 193196 MEAN 529 MAX 3120 MIN 104 CFSM 1.72 IN 23.41
WTR YR 1979 TOTAL 210710 MEAN 577 MAX 5070 MIN 58 CFSM 1.88 IN 25.53

04282500 OTTER CREEK AT MIDDLEBURY, VT

LOCATION.--Lat 44°00'47", long 73°10'06", Addison County, Hydrologic Unit 02010002, on right bank 150 ft (46 m) upstream from highway bridge in Middlebury and 3.5 mi (5.6 km) downstream from Middlebury River.

DRAINAGE AREA.--628 mi^2 (1,627 km^2).

PERIOD OF RECORD.--Discharge: April 1903 to April 1907, October 1910 to January 1920, October 1928 to current year.
Water-quality records: Water years 1954, 1967-74.

REVISED RECORDS.--WSP 434: 1903-4. WSP 684: 1913(M), drainage area. WSP 1114: 1913. WSP 1207: 1929, 1931.

GAGE.--Water-stage recorder. Datum of gage is 335.75 ft (102.337 m) National Geodetic Vertical Datum of 1929. Apr. 1, 1903, to Apr. 30, 1907, and Oct. 5, 1910, to Jan. 31, 1920, nonrecording gage at site 1,800 ft (550 m) upstream at datum 10 ft (3 m) lower, and Oct. 1, 1928, to Oct. 17, 1933, at present datum.

REMARKS.--Records good except those for periods of no gage-height record, Feb. 1 to Mar. 5, Mar. 10, 11, which are fair. Some regulation by Chittenden Reservoir, usable capacity, 819,800,000 ft^3 (23,220,000 m^3) on East Creek. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--63 years (water years 1904-06, 1911-19, 1929-79), 986 ft^3/s (27.92 m^3/s), 21.32 in/yr (542 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft^3/s (312 m^3/s) Mar. 20, 21, 1936, gage height, 10.3 ft (3.14 m); minimum daily, 92 ft^3/s (2.61 m^3/s) Aug. 9, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 13,600 ft^3/s (385 m^3/s) Nov. 4, 1927, gage height, 13.3 ft (4.05 m), present datum, at site 1,800 ft (550 m) upstream, from rating curve extended above 9,000 ft^3/s (250 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,070 ft^3/s (144 m^3/s) Mar. 10, gage height, 6.50 ft (1.981 m), from peak-stage indicator; minimum daily, 175 ft^3/s (4.96 m^3/s) Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	247	592	518	480	1030	1000	3450	2100	2260	445	240	287
2	187	579	495	1250	990	910	3310	2120	2170	687	224	238
3	302	527	391	1840	940	900	3230	2090	1980	1010	285	217
4	326	538	315	1870	890	1300	3120	1990	1710	747	304	198
5	294	479	485	1930	860	2150	3070	1830	1340	529	243	288
6	483	405	608	2010	840	2700	3010	1640	1170	441	194	451
7	747	473	659	2070	820	3000	2890	1380	1010	419	216	1180
8	686	484	643	2050	800	3100	2770	1120	888	369	195	1370
9	524	487	969	1980	770	3850	2630	975	723	322	175	1110
10	449	455	1110	1900	750	4800	2470	816	589	327	202	656
11	417	396	846	1810	730	4500	2300	776	649	330	312	456
12	396	338	642	1710	720	4650	2130	745	1360	315	364	350
13	370	351	724	1490	700	4580	1990	659	1490	284	338	355
14	566	420	685	1300	690	4330	1890	628	1280	277	330	376
15	950	381	742	1230	680	4100	1830	634	1020	242	331	778
16	1080	359	625	1140	670	3840	1880	615	820	312	298	718
17	992	406	536	1170	670	3590	1870	589	587	434	285	483
18	806	438	585	1070	660	3430	1850	544	516	412	289	400
19	576	640	747	1000	650	3270	1820	500	573	400	274	334
20	542	742	369	950	650	3060	1750	443	511	316	238	342
21	589	672	448	890	640	2890	1670	436	473	267	309	332
22	564	569	511	892	620	2780	1590	469	464	240	286	329
23	462	507	449	1020	610	2740	1550	483	434	198	245	281
24	500	381	417	1080	900	2810	1600	484	344	214	238	236
25	619	380	357	1050	1250	2960	1670	1080	337	218	219	291
26	588	382	365	1050	1300	2960	1740	1820	381	220	215	306
27	724	304	466	1060	1250	2950	1830	1950	365	241	232	277
28	1100	367	507	1030	1130	3150	1940	2060	335	262	338	268
29	1040	429	456	1070	---	3440	2030	2180	347	245	309	322
30	825	484	481	1110	---	3570	2070	2240	432	218	336	340
31	682	---	390	1080	---	3600	---	2290	---	250	336	---
TOTAL	18633	13965	17541	41582	23210	96910	66950	37686	26558	11191	8400	13569
MEAN	601	466	566	1341	829	3126	2232	1216	885	361	271	452
MAX	1100	742	1110	2070	1300	4800	3450	2290	2260	1010	364	1370
MIN	187	304	315	480	610	900	1550	436	335	198	175	198
CFSM	.96	.74	.90	2.14	1.32	4.98	3.55	1.94	1.41	.58	.43	.72
IN.	1.10	.83	1.04	2.46	1.37	5.74	3.97	2.23	1.57	.66	.50	.80

CAL YR 1978 TOTAL 356851 MEAN 978 MAX 3330 MIN 129 CFSM 1.56 IN 21.14
WTR YR 1979 TOTAL 376195 MEAN 1031 MAX 4800 MIN 175 CFSM 1.64 IN 22.28

04284000 JAIL BRANCH AT EAST BARRE, VT

LOCATION.--Lat 44°09'30", long 72°26'44", Washington County, Hydrologic Unit 02010003, on right bank 1,400 ft (430 m) upstream from highway bridge, at East Barre, 1,400 ft (430 m) downstream from East Barre Detention Reservoir, and 4.2 mi (6.8 km) upstream from mouth.

DRAINAGE AREA.--38.9 mi^2 (100.8 km^2).

PERIOD OF RECORD.--August 1920 to September 1923, October 1933 to current year. October 1933 monthly discharge only, published in WSP 1307. Prior to October 1922, published as Jail Brook at East Barre.

REVISED RECORDS.--WSP 564: 1922. WSP 1034: Drainage area. WSP 1307: 1921-23(M).

GAGE.--Water-stage recorder. Datum of gage is 1,107.25 ft (337.490 m) National Geodetic Vertical Datum of 1929. Aug. 14, 1920, to Sept. 30, 1923, nonrecording gage at site 0.1 mi (0.2 km) downstream at different datum. Nov. 1, 1933, to Jan. 25, 1935, nonrecording gage and Jan. 26, 1935, to Aug. 7, 1972, water-stage recorder at site 1,500 ft (460 m) downstream. Datum of gage was 1,071.59 ft (326.621 m) National Geodetic Vertical Datum of 1929 Nov. 1, 1933, to Sept. 30, 1964, and 1,069.59 ft (326.011 m) NGVD Oct. 1, 1964, to Aug. 7, 1972 (levels by Corps of Engineers).

REMARKS.--Records good except those for winter period, which are poor. Discharge affected by East Barre Detention Reservoir since 1935 (Reservoirs in Winooski River basin). Prior to 1964, occasional diurnal fluctuation at low flow caused by mill upstream. Diversion from reservoir on Orange Brook, a tributary upstream, for city of Barre. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--49 years, 54.7 ft^3/s (1.549 m^3/s), 19.10 in/yr (485 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,820 ft^3/s (51.5 m^3/s) Oct. 1, 1920, gage height, 9.50 ft (2.896 m), from graph based on gage readings, site and datum then in use, from rating curve extended above 900 ft^3/s (25 m^3/s); minimum, 0.1 ft^3/s (0.003 m^3/s) Aug. 18, 1950, Aug. 3, 4, 31, Sept. 1, 3, 1953. Maximum discharge since construction of East Barre Detention Reservoir in 1935, 634 ft^3/s (18.0 m^3/s) Apr. 19, 1969, gage height, 3.31 ft (1.009 m), site and datum then in use; maximum gage height, 9.48 ft (2.890 m) Jan. 7, 1973, ice jam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 580 ft^3/s (16 m^3/s) Mar. 6, gage height, 5.94 ft (1.811 m) ice jam; minimum, 2.4 ft^3/s (0.068 m^3/s) Aug. 7-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	11	8.8	15	30	13	293	179	70	16	2.8	3.4
2	4.9	11	8.0	110	28	13	223	160	56	88	2.7	3.0
3	5.1	11	7.4	160	27	13	219	80	48	55	6.7	2.8
4	4.4	11	9.0	100	25	13	202	150	40	22	4.9	3.6
5	18	11	11	85	24	110	182	89	34	16	3.4	3.5
6	31	11	12	70	23	530	158	76	66	15	2.8	23
7	22	11	11	60	22	540	131	70	42	9.4	2.4	40
8	12	10	13	52	21	450	115	65	32	8.2	2.4	9.8
9	9.4	10	30	46	20	380	110	59	29	7.8	2.4	6.7
10	7.8	10	24	43	19	170	103	56	26	5.7	2.6	5.1
11	6.7	10	20	41	18	198	92	51	25	5.1	4.5	4.3
12	6.4	10	22	40	18	143	101	49	82	4.6	4.3	4.1
13	6.4	9.7	18	39	17	188	133	48	49	4.6	4.0	3.7
14	34	9.4	16	38	16	148	152	49	30	3.7	4.0	6.7
15	61	9.4	15	42	16	223	136	47	22	3.3	4.0	45
16	22	9.3	14	40	15	204	149	39	18	3.3	3.8	12
17	15	10	14	39	15	92	156	35	16	8.1	3.4	6.3
18	12	40	13	37	14	110	146	32	15	6.8	3.0	5.1
19	10	29	14	35	14	77	130	32	14	9.9	8.3	4.8
20	10	18	14	34	14	83	124	29	12	5.5	14	5.7
21	8.8	28	15	35	14	122	145	29	10	4.1	6.6	5.1
22	8.8	16	14	50	13	205	166	32	9.4	3.7	4.5	4.6
23	7.8	9.3	13	66	13	292	183	29	9.4	3.3	3.5	4.6
24	14	8.3	13	58	14	413	209	45	9.4	3.1	3.1	4.1
25	11	8.2	13	50	14	481	199	240	9.4	3.1	3.1	4.0
26	11	8.0	13	46	14	505	213	395	8.2	3.0	3.1	4.0
27	56	7.8	12	42	14	470	263	175	7.1	5.1	3.6	3.8
28	26	8.2	12	39	14	358	339	95	6.7	4.7	5.9	3.6
29	16	8.8	12	37	---	168	344	153	7.1	3.8	4.5	6.0
30	12	9.0	12	34	---	164	223	114	7.1	3.1	4.4	7.4
31	11	---	12	31	---	270	---	112	---	2.8	4.4	---
TOTAL	484.3	373.4	435.2	1614	506	7146	5339	2814	809.8	337.8	133.1	245.8
MEAN	15.6	12.4	14.0	52.1	18.1	231	178	90.8	27.0	10.9	4.29	8.19
MAX	61	40	30	160	30	540	344	395	82	88	14	45
MIN	3.8	7.8	7.4	15	13	13	92	29	6.7	2.8	2.4	2.8
MEAN†	15.6	12.4	14.0	52.6	17.5	236	175	89.4	25.5	10.9	3.88	8.27
CFSM†	.40	.32	.36	1.35	.45	6.07	4.50	2.30	.65	.28	.10	.21
IN.†	.46	.36	.42	1.35	.47	7.00	5.02	2.65	.713	.32	.12	.24

CAL YR 1978 TOTAL 20709.0 MEAN 56.7 MAX 400 MIN 3.1 MEAN† 56.7 CFSM† 1.46 IN† 19.79
WTR YR 1979 TOTAL 20238.4 MEAN 55.4 MAX 540 MIN 2.4 MEAN† 55.4 CFSM† 1.42 IN† 19.34

† Adjusted for change in contents in East Barre Detention Reservoir.

04285500 NORTH BRANCH WINOOSKI RIVER AT WRIGHTSVILLE, VT

LOCATION.--Lat 44°17'58", long 72°34'45", Washington County, Hydrologic Unit 02010003, on right bank at Wrightsville, 0.8 mi (1.3 km) downstream from Wrightsville Detention Reservoir, and 3.5 mi (5.6 km) upstream from mouth.

DRAINAGE AREA.--69.2 mi^2 (179.2 km^2).

PERIOD OF RECORD.--Discharge: October 1933 to current year.
Water-quality records: Water year 1957.

REVISED RECORDS.--WSP 1237: 1937: 1934-39.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 550.53 ft (167.802 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Nov. 21, 1934, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter period and period of no gage-height record, May 30 to July 8, which are fair. Discharge affected since 1935 by Wrightsville Detention Reservoir (Reservoirs in Winooski River basin). Occasional diurnal fluctuation at low flow caused by small mill upstream; more frequent diurnal fluctuation prior to 1968. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--46 years, 134 ft^3/s (3.795 m^3/s), 26.30 in/yr (668 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,170 ft^3/s (61.5 m^3/s) Apr. 12, 1934, gage height, 6.53 ft (1.990 m), from rating curve extended above 920 ft^3/s (26 m^3/s); minimum daily, 0.2 ft^3/s (0.006 m^3/s) Aug. 13, 1941. Maximum discharge since construction of Wrightsville Detention Reservoir in 1935, 1,040 ft^3/s (29.5 m^3/s) Mar. 21, 1936, gage height, 4.32 ft (1.317 m); maximum gage height, 5.43 ft (1.655 m) Mar. 12, 1936, ice jam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 17,200 ft^3/s (487 m^3/s) Nov. 3, 1927, by computation of peak flow over dam 0.8 mi (1.3 km) above gage.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 765 ft^3/s (21.7 m^3/s) Mar. 26, gage height, 3.61 ft (1.100 m); minimum daily, 7.2 ft^3/s (0.20 m^3/s) Aug. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	43	28	34	52	33	644	524	550	25	7.2	34
2	15	39	27	242	48	32	640	467	480	88	9.2	24
3	17	35	24	455	47	32	623	433	380	47	58	26
4	14	33	25	530	46	34	600	424	310	35	26	47
5	41	31	33	444	45	84	576	383	160	25	17	34
6	172	29	39	319	44	361	540	326	160	22	12	90
7	136	28	36	135	43	587	493	191	140	17	12	319
8	57	26	42	105	42	597	441	138	115	17	12	214
9	39	25	89	96	40	582	384	129	100	14	12	75
10	30	24	68	90	39	553	322	97	100	12	29	50
11	25	23	45	86	37	521	186	82	205	13	81	44
12	22	22	44	82	36	476	160	76	320	13	31	39
13	21	20	43	80	35	415	206	78	290	12	25	33
14	83	22	41	80	34	348	264	68	190	11	21	54
15	269	29	38	80	35	273	247	60	140	9.4	24	325
16	107	26	37	74	36	173	314	57	110	16	35	252
17	61	23	37	68	35	140	358	54	80	44	24	91
18	46	53	37	58	34	138	364	48	78	35	17	60
19	43	74	37	54	33	119	361	45	72	20	24	48
20	40	51	37	52	33	128	356	42	60	14	42	45
21	35	33	38	56	33	187	369	41	43	11	26	39
22	31	25	37	160	33	312	407	41	41	9.2	21	36
23	29	23	36	110	32	420	440	37	36	7.9	17	31
24	34	27	36	82	32	542	491	45	35	7.7	16	28
25	32	29	35	70	33	679	515	258	35	8.1	24	25
26	29	27	35	66	34	754	541	443	34	9.0	54	23
27	130	24	35	64	34	747	581	476	29	11	100	22
28	110	27	35	60	34	717	620	464	19	11	150	21
29	72	28	35	58	---	683	610	610	17	11	62	23
30	47	28	35	56	---	644	572	630	18	9.2	80	24
31	46	---	35	54	---	631	---	610	---	7.8	62	---
TOTAL	1840.5	927	1199	4000	1059	11942	13225	7377	4347	592.3	1130.4	2176
MEAN	59.4	30.9	38.7	129	37.8	385	441	238	145	19.1	36.5	72.5
MAX	269	74	89	530	52	754	644	630	550	88	150	325
MIN	7.5	20	24	34	32	32	160	37	17	7.7	7.2	21
MEAN†	59.8	30.9	38.7	129	37.6	441	428	232	106	18.8	37.0	72.3
CFSM†	.86	.45	.56	1.86	.54	6.37	6.18	3.35	1.53	.27	.53	1.04
IN.†	1.00	.50	.65	2.15	.57	7.35	6.89	3.87	1.72	.31	.62	1.17

CAL YR 1978 TOTAL 41934.4 MEAN 115 MAX 698 MIN 5.2 MEAN† 115 CFSM† 1.66 IN† 22.54
WTR YR 1979 TOTAL 49815.2 MEAN 136 MAX 754 MIN 7.2 MEAN† 136 CFSM† 1.97 IN† 26.78

† Adjusted for change in contents in Wrightsville Detention Reservoir.

RESERVOIRS IN WINOOSKI RIVER BASIN ABOVE MONTPELIER, VT

04283500 EAST BARRE DETENTION RESERVOIR.--Lat 44°09'18", long 72°26'42", Washington County, Hydrologic Unit 02010003, at dam on Jail Branch at East Barre, 4.5 mi (7.2 km) upstream from mouth. DRAINAGE AREA, 38.8 mi² (100.5 km²). PERIOD OF RECORD, February 1936 (in WSP 1307), March and April 1936 (in WSP 798), May 1936 to August 1938 (in WSP 1307), September 1938 (in WSP 867), October 1938 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Aug. 30, 1960, nonrecording gage, and Aug. 30 to Sept. 30, 1960, water-stage recorder, at present site at datum 1,127.9 ft (343.78 m) National Geodetic Vertical Datum of 1929.

Reservoir is formed by earthfill dam completed by Corps of Engineers in 1935 for flood control. Usable capacity, 525,000,000 ft³ (14,900,000 m³) between elevation 1,124.9 ft (342.87 m, bottom of outlet opening) and 1,165.0 ft (355.09 m, crest of spillway). Dam has no gates; below elevation 1,165.0 ft (355.09 m), outflow from reservoir is dependent on capacity of outlet opening near base of dam. Outlet-opening enlargement and reservoir-construction modifications completed in November 1959. Size of opening since enlargement, height, 7 ft (2.1 m) and average width, 3.7 ft (1.13 m). Figures given herein represent usable contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,163.9 ft (354.76 m), present datum, Mar. 22, 1936; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,144.24 ft (348.764 m) Mar. 26; minimum not determined.

04285000 WRIGHTSVILLE DETENTION RESERVOIR.--Lat 44°18'38", long 72°34'31", Washington County, Hydrologic Unit 02010003, at dam on North Branch Winooski River at Wrightsville, 0.3 mi (0.5 km) downstream from Long Meadow Brook, and 4.2 mi (6.8 km) upstream from mouth. DRAINAGE AREA, 66.5 mi² (172.2 km²). PERIOD OF RECORD, November 1935 to February 1936 (in WSP 1307), March to May 1936 (in WSP 798), June 1936 to August 1938 (in WSP 1307), September 1938 (in WSP 867), October 1938 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to July 28, 1960, nonrecording gage, and July 28 to Sept. 30, 1960, water-stage recorder, at present site at datum 612.75 ft (186.766 km) National Geodetic Vertical Datum of 1929.

Reservoir is formed by earthfill dam completed by Corps of Engineers in 1935 for flood control; modification of intake-structure works to create a recreational pool completed in June 1965. Usable capacity for recreation, 22,000,000 ft³ (620,000 m³) between elevations 612.75 ft (186.766 m, bottom of outlet opening) and 620.00 ft (188.976 m); for flood control, 851,500,000 ft³ (24,110,000 m³) between elevations 620.00 ft (188.976 m) and 685.00 ft (208.788 m, crest of spillway); total usable capacity, 873,500,000 ft³ (24,740,000 m³). Dam has no gates; below elevation 685.00 ft (208.788 m), outflow from reservoir is dependent on capacity of outlet opening, 5.25 ft (1.600 m) square near base of dam. Figures given herein represent usable contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 676.4 ft (206.17 m), present datum, Mar. 22, 1936, from graph based on gage readings; minimum observed, 613.00 ft (186.84 m) Aug. 17, 1949, and Aug. 17-19, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 652.07 ft (198.751 m) Mar. 26; minimum, 619.95 ft (188.961 m) Aug. 1.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

Date	Elevation (feet)	Contents (millions of cubic feet)	Change in contents: Millions of cubic feet	Change in contents: Equivalent, cubic feet per second
		04283500 East Barre Detention Reservoir		
Sept. 30	-	*4	-	-
Oct. 31	-	*4	0	0
Nov. 30	-	*4	0	0
Dec. 31	-	*4	0	0
CAL YR 1978	-	-	-1.7	-.05
Jan. 31	1129.88	5.4	+1.4	+.52
Feb. 28	-	*4	-1.4	-.58
Mar. 31	1137.17	19.1	+15.1	+5.64
Apr. 30	1134.11	11.6	-7.5	-2.89
May 31	1131.70	7.8	-3.8	-1.42
June 30	-	*4	-3.8	-1.47
July 31	-	*4	0	0
Aug. 31	1127.70	2.9	-1.1	-.41
Sept. 30	1127.88	3.1	+.2	+.08
WTR YR 1979	-	-	-.9	-.03
		04285000 Wrightsville Detention Reservoir		
Sept. 30	*620.02	22.1	-	-
Oct. 31	*620.33	23.3	+1.2	+.45
Nov. 30	620.30	23.2	-.1	-.04
Dec. 31	620.32	23.3	+.1	+.04
CAL YR 1978	-	-	-.90	-.03
Jan. 31	620.45	23.8	+.5	+.19
Feb. 28	620.35	23.4	-.4	-.17
Mar. 31	642.04	172.5	+149.1	+55.7
Apr. 30	638.33	137.9	-34.6	-13.3
May 31	636.52	122.1	-15.8	-5.90
June 30	620.14	22.6	-99.5	-38.4
July 31	619.96	21.9	-.7	-.26
Aug. 31	620.36	23.4	+1.5	+.56
Sept. 30	620.17	22.7	-.7	-.27
WTR YR 1979	-	-	+.60	+.02

* Estimated.

04286000 WINOOSKI RIVER AT MONTPELIER, VT

LOCATION.--Lat 44°15'23", long 72°35'36", Washington County, Hydrologic Unit 02010003, on right bank 0.4 mi (0.6 km) upstream from Dog River and 1 mi (1.6 km) downstream from depot at Montpelier.

DRAINAGE AREA.--397 mi^2 (1,028 km^2).

PERIOD OF RECORD.--May 1909 to June 1914 (fragmentary), July 1914 to September 1923, August 1928 to current year.

REVISED RECORDS.--WSP 424: 1915. WSP 894: Drainage area. WSP 1437: 1912-14(M), 1915-18, 1919(M), 1920, 1921(M), 1922-23, 1929, 1933, 1934(M), 1936, 1937(M), 1938, 1946(M). WDR MA-NH-RI-VT-72-1: 1969(M), 1970(P), 1971(M).

GAGE.--Water-stage recorder. Datum of gage is 499.99 ft (152.397 m) National Geodetic Vertical Datum of 1929. Prior to June 16, 1914, nonrecording gage at site 0.9 mi (1.4 km) upstream at different datum. June 16 to July 3, 1914, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period and period of no gage-height record, May 22 to July 5, which are fair. Flow regulated by several small powerplants upstream, by Peacham Pond and, since 1926, by Mollys Falls Reservoir, combined usable capacity, 492,000,000 ft^3 (13,900,000 m^3), which regulate runoff from 24 mi^2 (62 km^2), and by East Barre and Wrightsville Detention Reservoirs since 1935 (Reservoirs in Winooski River basin). See table below for monthend contents in Peacham Pond and Mollys Falls Reservoir. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--60 years (water years 1915-23, 1929-79), 590 ft^3/s (16.71 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,200 ft^3/s (487 m^3/s) Apr. 7, 1912, gage height, 17.31 ft (5.276 m), from floodmarks, present datum, from rating curve extended above 6,900 ft^3/s (200 m^3/s); maximum gage height, 17.55 ft (5.349 m) June 30, 1973; minimum daily discharge, 17 ft^3/s (0.48 m^3/s) Sept. 3, 1933.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 57,000 ft^3/s (1,610 m^3/s) Nov. 3, 1927, gage height, 27.1 ft (8.26 m), from rating curve extended above 6,900 ft^3/s (200 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,900 ft^3/s (110 m^3/s) and maximums (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 7	0245	4500	130	a*12.57	3.831	Mar. 25	1845	*5330	151	10.03	3.057

a Ice jam.

Minimum daily discharge, 74 ft^3/s (1.84 m^3/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	193	150	240	370	260	2170	1400	1140	210	85	300
2	84	181	140	930	360	265	2050	1280	1000	570	102	205
3	119	152	130	2300	335	280	2160	1150	900	450	267	200
4	101	142	145	1250	290	250	1920	1400	760	340	204	225
5	152	141	175	800	250	440	1800	1180	500	205	126	150
6	354	137	185	650	290	2500	1700	1000	640	213	107	290
7	410	134	180	490	285	4000	1520	870	550	186	120	750
8	199	134	170	470	290	3200	1350	780	400	148	106	533
9	150	131	408	460	280	2500	1250	700	380	137	104	258
10	128	126	262	440	260	2000	1170	630	350	150	134	194
11	140	121	190	410	235	1600	986	570	550	144	362	170
12	133	119	225	360	210	1400	986	500	1140	118	185	158
13	142	116	240	390	260	1250	1100	410	950	114	143	140
14	384	119	220	360	245	1350	1240	460	600	109	194	184
15	671	146	210	330	240	1400	1190	440	460	103	178	767
16	325	124	195	330	255	1000	1450	390	380	113	229	515
17	240	114	180	330	240	890	1440	370	320	197	170	266
18	208	231	170	325	205	810	1330	349	270	186	116	215
19	202	245	180	315	170	810	1260	306	310	169	129	187
20	199	189	210	300	180	890	1220	281	260	135	192	176
21	172	168	200	260	190	1200	1280	291	240	109	170	157
22	142	160	190	300	200	1710	1350	330	220	96	128	149
23	150	140	190	450	210	2190	1440	300	210	90	113	135
24	184	125	170	420	215	3190	1450	340	190	117	104	125
25	172	120	175	400	200	4960	1430	2100	170	111	148	122
26	184	120	180	400	200	4110	1410	2600	180	111	232	142
27	563	135	190	400	230	2790	1600	1400	175	148	242	139
28	367	204	195	370	245	2240	1900	1600	165	115	390	134
29	251	213	195	350	---	1910	1750	2250	165	96	254	167
30	211	173	180	370	---	1830	1600	1700	175	88	460	144
31	191	---	180	360	---	2090	---	1300	---	86	390	---
TOTAL	7002	4553	6010	15560	6940	55315	44502	28677	13750	5164	5884	7297
MEAN	226	152	194	502	248	1784	1483	925	458	167	190	243
MAX	671	245	408	2300	370	4960	2170	2600	1140	570	460	767
MIN	74	114	130	240	170	250	986	281	165	86	85	122
(†)	332.2	316.0	295.1	243.3	136.2	133.4	404.3	436.4	412.4	424.4	420.9	416.8

CAL YR 1978 TOTAL 191798 MEAN 525 MAX 3070 MIN 65
WTR YR 1979 TOTAL 200654 MEAN 550 MAX 4960 MIN 74

† Monthend contents, in millions of cubic feet, in Peacham Pond and Mollys Falls Reservoir; records furnished by Green Mountain Power Corp.

04287000 DOG RIVER AT NORTHFIELD FALLS, VT

LOCATION.--Lat 44°10'58", long 72°38'27", Washington County, Hydrologic Unit 02010003, on right bank 1 mi (1.6 km) downstream from Northfield Falls and 1.2 mi (1.9 km) downstream from Cox Branch.

DRAINAGE AREA.--76.1 mi^2 (197.1 km^2).

PERIOD OF RECORD.--Discharge: October 1934 to current year. October 1934 monthly discharge only, published in WSP 1307.
Water-quality records: Water year 1957.

REVISED RECORDS.--WSP 1237: 1935-37.

GAGE.--Water-stage recorder. Datum of gage is 603.00 ft (183.794 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good except those for winter period, which are fair and period of no gage-height record, May 21 to July 12, which are poor. Infrequent diurnal fluctuation at low flow by powerplant upstream; regulation much greater prior to 1955. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--45 years, 122 ft^3/s (3.455 m^3/s), 21.77 in/yr (553 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,600 ft^3/s (300 m^3/s) June 30, 1973, gage height, 11.57 ft (3.527 m), from rating curve extended above 1,500 ft^3/s (42.5 m^3/s) on basis of computation of flow over dam at gage height 8.49 ft (2.588 m) and slope-area measurements at gage heights 8.96 ft (2.731 m), 11.53 ft (3.514 m), and 11.57 ft (3.527 m); minimum, 4.3 ft^3/s (0.12 m^3/s) Aug. 31, Sept. 7, 1942.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,600 ft^3/s (45 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 25	0800	*2260	64.0	5.42	1.652						

Minimum discharge, 11 ft^3/s (0.31 m^3/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	34	26	48	65	45	539	276	190	50	15	35
2	17	31	25	486	63	45	421	229	160	115	15	25
3	14	29	19	489	61	45	397	199	130	90	42	32
4	13	27	27	220	59	46	365	282	120	55	25	45
5	29	27	35	160	57	165	366	219	110	44	18	31
6	58	26	34	140	56	1140	310	186	120	37	17	171
7	48	25	34	120	55	929	262	163	105	34	15	192
8	30	25	40	110	54	501	231	146	92	31	15	80
9	21	25	86	100	52	380	220	133	86	28	14	57
10	18	23	62	90	50	321	204	120	76	26	19	46
11	18	22	40	88	50	361	183	110	90	24	32	39
12	16	22	50	84	49	262	195	102	135	22	20	34
13	17	21	48	82	48	228	230	98	120	21	18	31
14	67	21	45	80	48	273	272	98	100	20	19	61
15	112	21	41	92	47	286	259	91	80	18	18	136
16	56	20	39	88	46	224	333	83	68	34	19	73
17	42	20	38	82	45	196	354	78	60	39	17	56
18	35	54	37	78	45	178	349	73	54	28	15	47
19	33	51	38	76	45	165	331	69	50	22	30	49
20	32	40	39	78	45	171	320	66	47	19	40	45
21	29	30	42	80	44	239	356	66	43	17	26	40
22	26	22	39	120	44	425	392	65	40	16	20	38
23	24	22	37	100	44	719	447	64	38	16	18	35
24	31	26	36	85	44	1060	454	130	36	23	16	31
25	27	27	35	82	45	1930	418	660	35	31	34	29
26	27	22	35	80	47	976	414	500	33	25	33	26
27	63	22	35	76	46	501	654	380	32	38	43	24
28	58	25	35	74	45	357	537	270	30	25	44	23
29	46	27	34	72	---	309	529	330	40	20	35	33
30	39	27	34	70	---	310	349	280	36	17	150	30
31	36	---	34	66	---	554	---	230	---	16	55	---
TOTAL	1094	814	1199	3696	1399	13341	10691	5796	2356	1001	897	1594
MEAN	35.3	27.1	38.7	119	50.0	430	356	187	78.5	32.3	28.9	53.1
MAX	112	54	86	489	65	1930	654	660	190	115	150	192
MIN	12	20	19	48	44	45	183	64	30	16	14	23
CFSM	.46	.36	.51	1.56	.66	5.65	4.68	2.46	1.03	.42	.38	.70
IN.	.53	.40	.59	1.81	.68	6.52	5.23	2.83	1.15	.49	.44	.78

CAL YR 1978 TOTAL 42054 MEAN 115 MAX 1290 MIN 10 CFSM 1.51 IN 20.56
WTR YR 1979 TOTAL 43878 MEAN 120 MAX 1930 MIN 12 CFSM 1.58 IN 21.45

04288000 MAD RIVER NEAR MORETOWN, VT

LOCATION.--Lat 44°16'42", long 72°44'37", Washington County, Hydrologic Unit 02010003, on left bank at downstream side of highway bridge, 2.4 mi (3.9 km) downstream from Moretown, and 3.8 mi (6.1 km) upstream from mouth.

DRAINAGE AREA.--139 mi^2 (360 km^2).

PERIOD OF RECORD.--Discharge: July to November 1910, October 1928 to current year. October 1928 monthly discharge only, published in WSP 1307.
Water-quality records: Water years 1954-55, 1957, 1967-74.

REVISED RECORDS.--WSP 744: Drainage area. WSP 854: 1934(M). WSP 1114: 1929, 1930(M), 1936-37.

GAGE.--Water-stage recorder. Concrete control since Oct. 13, 1933. Datum of gage is 543.93 ft (165.790 m) National Geodetic Vertical Datum of 1929 (levels by Vermont Department of Highways). July 6 to Nov. 4, 1910, nonrecording gage at same site at different datum. Nov. 20, 1928, to Sept. 27, 1930, nonrecording gage at same site at present datum.

REMARKS.--Records good except those for winter period, which are fair, and those for period of no gage-height record, Nov. 2 to Dec. 13, which are poor. Occasional diurnal fluctuation at low flow; much greater regulation prior to 1958. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--51 years (water years 1928-79), 256 ft^3/s (7.250 m^3/s), 25.01 in/yr (635 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,400 ft^3/s (521 m^3/s) Sept. 22, 1938, gage height, 16.34 ft (4.980 m), from floodmarks, from rating curve extended above 2,700 ft^3/s (76 m^3/s) on basis of computations of flow over dam at gage heights 9.98 ft (3.042 m), 11.51 ft (3.508 m), 16.34 ft (4.980 m), and 19.4 ft (5.91 m); minimum, 1.4 ft^3/s (0.040 m^3/s) Oct. 1, 1930.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 23,000 ft^3/s (650 m^3/s) Nov. 3, 1927, gage height, 19.4 ft (5.91 m), from floodmarks, by computation of peak flow over dam.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,400 ft^3/s (96 m^3/s) and maximums (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 6	-	*4600	130	a*13.76	4.194	Sept. 6	2000	3950	112	7.49	2.283

a Ice jam.

Minimum discharge, 23 ft^3/s (0.65 m^3/s) July 23, 24, Aug. 1, 2, 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	105	78	150	130	90	1040	505	360	68	24	109
2	40	100	72	1500	125	92	737	407	282	164	28	76
3	36	97	62	800	120	90	707	350	236	101	163	102
4	34	93	75	400	115	100	615	595	190	65	49	142
5	99	90	110	310	115	900	607	460	163	55	35	80
6	417	87	105	260	110	2000	518	370	309	59	33	1010
7	203	84	100	240	110	1800	427	310	180	51	29	1020
8	105	83	140	210	105	1100	388	274	146	44	29	341
9	78	82	230	190	105	850	366	266	131	41	26	207
10	68	80	180	165	100	700	337	247	120	38	47	149
11	61	77	110	155	100	760	307	215	215	36	70	134
12	56	75	130	155	99	650	346	190	315	34	42	108
13	56	72	120	150	98	441	413	175	266	33	40	92
14	240	69	110	155	97	778	482	176	168	32	45	183
15	403	66	105	170	95	727	456	152	128	31	53	553
16	175	64	98	160	92	483	676	140	104	54	96	225
17	120	64	96	150	92	398	608	126	89	59	56	157
18	99	165	92	145	91	345	550	113	79	43	41	119
19	96	150	94	140	90	324	508	104	77	39	123	144
20	123	135	100	140	91	342	481	99	68	34	111	138
21	96	110	110	150	91	489	526	94	61	29	64	109
22	84	84	105	220	92	749	610	97	57	27	50	106
23	81	69	100	200	90	1130	731	85	57	24	41	91
24	115	76	98	170	92	1700	728	141	56	27	37	81
25	92	84	94	165	92	2510	700	1460	56	42	118	74
26	85	76	90	155	90	1390	804	1340	50	31	107	69
27	240	72	88	150	90	745	1190	709	46	51	160	63
28	200	74	82	145	90	546	1260	609	45	40	169	61
29	160	79	80	140	---	495	1060	1160	65	32	90	95
30	135	82	78	140	---	573	649	603	52	28	491	82
31	120	---	80	135	---	1240	---	502	---	26	197	---
TOTAL	3944	2644	3212	7515	2807	24537	18827	12074	4171	1438	2664	5920
MEAN	127	88.1	104	242	100	792	628	389	139	46.4	85.9	197
MAX	417	165	230	1500	130	2510	1260	1460	360	164	491	1020
MIN	27	64	62	135	90	90	307	85	45	24	24	61
CFSM	.91	.63	.75	1.74	.72	5.70	4.52	2.80	1.00	.33	.62	1.42
IN.	1.06	.71	.86	2.01	.75	6.57	5.04	3.23	1.12	.38	.71	1.58

CAL YR 1978 TOTAL 98248 MEAN 269 MAX 2300 MIN 23 CFSM 1.94 IN 26.29
WTR YR 1979 TOTAL 89753 MEAN 246 MAX 2510 MIN 24 CFSM 1.77 IN 24.02

04288500 WATERBURY RESERVOIR NEAR WATERBURY, VT

LOCATION.--Lat 44°22'54", long 72°46'13", Washington County, Hydrologic Unit 02010003, at dam on Little River 2.7 mi (4.3 km) upstream from mouth and 3.5 mi (5.6 km) north of Waterbury.

DRAINAGE AREA.--109 mi² (282 km²).

PERIOD OF RECORD.--Elevation: September 1937 to current year. September 1937 to September 1938 monthend contents only, published in WSP 1307.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Dec. 10, 1938, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earthfill dam completed by Corps of Engineers during summer of 1937 for flood control and storage of water for power. Usable capacity for storage of water for power, 1,582,700,000 ft³ (44,822,000 m³) between elevations 500.0 ft (152.40 m) and 592.0 ft (180.44 m), sill of taintor gate; for flood control, 1,229,000,000 ft³ (34,822,000 m³) between elevations 592.0 ft (180.44 m) and 617.5 ft (188.21 m), crest of spillway; total usable capacity, 2,812,300,000 ft³ (79,644,000 m³).

Capacity table (elevation, in feet, and contents, in millions of cubic feet)

530.0	180.8	570.0	891.9
540.0	302.7	580.0	1,168.5
550.0	461.7	590.0	1,505.0
560.0	658.8	600.0	1,913.4

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 613.45 ft (186.980 m) May 4, 1940; minimum observed, 501.3 ft (152.80 m) Oct. 16, 1938.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 592.23 ft (180.512 m) Jan. 8; minimum, 567.07 ft (172.843 m) Mar. 5.

MEAN GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	583.52	587.71	590.54	587.62	585.62	569.02	585.66	588.94	590.73	590.38	589.58	590.22
2	583.70	587.62	590.64	591.25	584.99	568.24	586.12	588.39	590.26	590.26	589.86	590.36
3	583.80	587.58	590.57	591.83	584.81	567.42	586.40	587.80	589.84	590.02	590.39	590.42
4	584.00	587.74	590.16	591.48	584.61	567.64	586.32	588.25	589.93	590.16	590.50	590.20
5	584.42	587.88	589.97	591.51	584.53	568.34	586.17	588.05	589.90	589.79	590.60	590.11
6	585.94	587.87	589.84	591.74	584.07	576.42	585.85	587.51	589.70	589.66	590.39	591.28
7	586.41	588.03	589.49	592.11	583.58	578.90	585.27	587.30	589.40	589.76	590.27	591.84
8	586.64	588.14	589.09	591.85	583.09	579.30	584.63	587.47	589.35	589.85	590.22	591.11
9	586.84	588.26	589.55	591.51	582.53	579.12	583.95	587.65	589.58	589.65	590.06	590.93
10	586.70	588.37	589.74	591.14	581.70	578.69	583.13	587.72	589.77	589.50	589.62	590.59
11	586.57	588.49	589.64	590.67	580.91	578.25	582.30	588.00	590.07	589.33	589.89	590.51
12	586.42	588.57	589.46	590.17	579.97	577.36	581.57	588.41	591.05	589.19	590.04	590.44
13	586.17	588.64	589.24	590.14	579.07	576.34	580.98	588.84	590.61	589.15	589.68	590.04
14	586.90	588.92	589.14	590.44	578.38	575.80	580.63	589.01	590.96	589.18	589.41	590.21
15	587.83	589.14	589.03	590.34	577.64	575.20	580.12	588.83	591.24	589.23	589.56	591.07
16	587.87	589.27	589.19	590.12	577.01	574.23	580.28	588.68	591.49	589.24	589.67	591.51
17	587.91	589.40	589.29	589.72	576.08	573.18	580.06	588.45	591.68	589.33	589.57	591.33
18	587.58	589.86	588.89	589.34	575.40	572.03	579.62	588.15	591.86	589.41	589.68	591.10
19	587.26	590.16	588.41	588.96	574.86	570.89	579.13	588.40	592.01	589.48	590.11	590.86
20	586.94	590.33	588.07	588.79	574.24	569.86	578.66	588.61	592.09	589.36	589.96	590.62
21	587.10	590.16	587.92	589.13	573.62	569.33	578.46	588.29	591.39	589.40	589.86	590.55
22	587.26	590.25	587.81	588.94	572.99	569.79	578.55	587.98	590.69	589.45	589.69	590.70
23	586.90	590.34	587.95	588.69	572.30	571.76	579.46	587.86	590.78	589.48	589.52	590.85
24	586.51	590.52	588.08	587.76	571.65	575.50	580.16	588.00	590.90	589.51	589.36	590.47
25	586.17	590.64	588.32	587.50	571.87	581.48	580.91	589.06	590.74	589.60	590.08	590.32
26	585.92	590.74	588.09	587.16	571.24	583.57	582.33	589.85	590.56	589.56	590.47	589.95
27	586.91	590.53	587.91	586.85	570.54	583.64	585.74	590.98	590.38	589.65	591.01	589.60
28	587.39	590.48	587.59	587.09	569.78	583.20	588.01	591.25	590.10	589.68	591.09	589.21
29	587.78	590.44	587.24	586.77	---	582.72	589.15	592.04	589.93	589.72	590.88	589.35
30	587.81	590.44	587.04	586.40	---	582.49	589.21	591.84	590.05	589.76	590.58	589.46
31	587.79	---	587.21	586.23	---	584.33	---	591.40	---	589.78	590.06	---
MEAN	586.48	589.22	588.87	589.46	578.11	575.61	582.96	588.81	590.57	589.60	590.05	590.51
MAX	587.91	590.74	590.64	592.11	585.62	584.33	589.21	592.04	592.09	590.38	591.09	591.84
MIN	583.52	587.58	587.04	586.23	569.78	567.42	578.46	587.30	589.35	589.15	589.36	589.21
(†)	1426.7	1522.1	1406.2	1371.6	886.5	1306.9	1477.0	1559.3	1506.9	1497.1	1507.3	1485.8
(‡)	+56.3	+36.8	-43.3	-12.9	-201	+157	+65.6	+30.7	-20.2	-3.66	+3.81	-8.29

CAL YR 1978 MEAN 580.87 MAX 592.81 MIN 534.33
WTR YR 1979 MEAN 586.74 MAX 592.11 MIN 567.42

† Contents, in millions of cubic feet, at end of month.
‡ Change in contents, equivalent in cubic feet per second.

04289000 LITTLE RIVER NEAR WATERBURY, VT

LOCATION.--Lat 44°22'12", long 72°46'11", Washington County, Hydrologic Unit 02010003, on right bank 1 mi (1.6 km) downstream from Waterbury Reservoir, 1.7 mi (2.7 km) upstream from mouth, and 2.5 mi (4.0 km) north of Waterbury.

DRAINAGE AREA.--111 mi^2 (287 km^2).

PERIOD OF RECORD.--July to October 1910 (gage heights only), October 1935 to current year. October, November 1935 monthly discharge only, published in WSP 1307. Prior to October 1962, published as Waterbury River near Waterbury.

REVISED RECORDS.--WSP 824: 1936.

GAGE.--Water-stage recorder. Concrete control since Dec. 8, 1937. Datum of gage is 428.00 ft (130.454 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). July 7 to Oct. 31, 1910, nonrecording gage at site 2 mi (3 km) upstream at different datum.

REMARKS.--Records excellent except those for periods of no gage-height record Oct. 1 to Jan. 31, May 23 to July 5, which are poor. Flow completely regulated by Waterbury Reservoir (station 04288500). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--44 years, 240 ft^3/s (6.797 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,520 ft^3/s (185 m^3/s) Mar. 18, 1936, gage height, 19.38 ft (5.907 m); minimum daily, 0.6 ft^3/s (0.017 m^3/s) several times during summers of 1938-39, 1941, and 1944. Maximum discharge since construction of Waterbury Reservoir in 1937, 4,080 ft^3/s (116 m^3/s) Dec. 9, 1937, gage height, 14.88 ft (4.535 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 728 ft^3/s (20.6 m^3/s) about June 12, gage height, 8.10 ft (2.469 m), from peak-stage indicator; minimum daily, 8.4 ft^3/s (0.24 m^3/s) July 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	115	15	15	313	272	550	580	530	15	127	16
2	15	120	15	175	320	281	560	580	380	290	22	14
3	15	75	75	530	177	289	560	580	335	205	20	138
4	15	15	215	415	14	27	560	575	120	15	17	214
5	15	15	190	185	242	503	570	570	160	205	17	121
6	17	55	120	80	252	196	565	565	210	101	159	318
7	15	15	205	15	254	552	560	345	215	8.6	104	564
8	15	15	290	295	253	552	555	200	120	8.4	105	581
9	15	15	15	265	275	552	560	240	15	103	130	272
10	110	15	15	270	341	552	570	240	15	107	350	266
11	110	15	100	295	350	552	574	95	255	116	19	227
12	115	15	155	300	365	552	574	15	560	104	18	148
13	155	15	120	120	360	552	578	15	475	66	204	264
14	15	15	120	15	291	552	570	95	28	15	177	271
15	15	15	120	195	297	552	570	200	15	15	218	208
16	135	15	15	215	274	550	583	210	15	80	120	19
17	96	15	70	265	333	540	583	180	15	52	120	218
18	200	15	280	315	275	540	588	180	15	16	15	217
19	200	15	290	240	206	535	588	14	15	16	15	214
20	200	15	195	165	245	540	570	14	38	74	185	216
21	15	110	140	15	242	500	550	180	330	16	120	123
22	15	15	80	205	241	520	560	180	330	16	115	16
23	200	15	15	200	256	520	530	115	15	16	115	16
24	200	15	15	200	244	545	530	115	15	89	115	212
25	200	15	15	200	12	540	520	365	120	23	15	124
26	200	15	150	220	262	540	540	520	120	62	15	210
27	115	150	145	210	261	540	560	15	120	17	205	197
28	15	55	175	15	275	550	570	260	160	17	205	214
29	15	80	195	215	---	550	575	530	120	17	205	15
30	95	55	130	220	---	545	580	530	15	16	378	15
31	95	---	15	165	---	540	---	530	---	16	367	---
TOTAL	2653	1130	3695	6235	7230	15131	16903	8833	4876	1917.0	3997	5648
MEAN	85.6	37.7	119	201	258	488	563	285	163	61.8	129	188
MAX	200	150	290	530	365	552	588	580	560	290	378	581
MIN	15	15	15	15	12	27	520	14	15	8.4	15	14

CAL YR 1978 TOTAL 92898.0 MEAN 255 MAX 660 MIN 13
WTR YR 1979 TOTAL 78248.0 MEAN 214 MAX 588 MIN 8.4

04290500 WINOOSKI RIVER NEAR ESSEX JUNCTION, VT

LOCATION.--Lat 44°28'44", long 73°08'21", Chittenden County, Hydrologic Unit 02010003, on right bank 0.5 mi (0.8 km) downstream from Muddy Brook and 2 mi (3 km) southwest of Essex Junction.
DRAINAGE AREA.--1,044 mi² (2,704 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1928 to current year.
REVISED RECORDS.--WSP 714: 1930(M). WSP 894: Drainage area. WSP 1307: 1929(M).
GAGE.--Water-stage recorder. Altitude of gage is 185 ft (56 m), from topographic map; prior to Oct. 1, 1964, datum was 1.00 ft (0.305 m) higher.
REMARKS.--Records fair October to March; good thereafter. No gage-height record Jan. 26 to Mar. 12, Mar. 20 to Apr. 4. Flow regulated by powerplants upstream, by Peacham Pond and Mollys Falls Reservoir, combined usable capacity, 492,000,000 ft³ (13,900,000 m³), by Waterbury Reservoir (station 04288500) since 1937, and by East Barre and Wrightsville Detention Reservoirs (Reservoirs in Winooski River basin) since 1935. See table with station 04286000 for monthend contents in Peacham Pond and Mollys Falls Reservoir. Several observations of water temperature and specific conductance were made during the year.
AVERAGE DISCHARGE.--51 years, 1,704 ft³/s (48.26 m³/s).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,300 ft³/s (1,280 m³/s) Mar. 19, 1936, gage height, 24.54 ft (7.480 m), present datum, from rating curve extended above 27,000 ft³/s (760 m³/s) on basis of computations of flow over dam at gage heights 19.72 (6.011 m), 24.54 (7.480 m), and 51.4 ft (15.67 m) and slope-area measurement at gage height 51.4 ft (15.67 m), all at present datum; minimum daily, 24 ft³/s (0.68 m³/s) Sept. 7, 1968.
EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 113,000 ft³/s (3,200 m³/s) Nov. 4, 1927, gage height, 51.4 ft (15.67 m), present datum, from floodmarks, from rating curve extended above 27,000 ft³/s (760 m³/s) by method explained above.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 12,500 ft³/s (354 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 6	--	*24800	705	a15.71	4.788	Mar. 25	--	16200	459	a11.32	3.450

a From peak-stage indicator.

Minimum daily discharge, 53 ft³/s (1.50 m³/s) Aug. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	606	451	987	980	760	7900	3810	3330	375	217	786
2	339	623	310	6000	1050	820	6200	3300	2620	660	366	455
3	431	636	89	6800	930	920	6100	2900	2300	1190	301	474
4	280	330	727	3130	860	550	4900	3430	2010	637	390	764
5	236	302	708	2150	650	5000	4680	3520	1610	564	403	695
6	713	399	616	1740	780	13000	4440	2900	900	580	611	1050
7	1270	475	510	1500	820	11000	3840	2540	1570	510	390	4760
8	571	351	899	1200	840	6000	3360	1970	1360	395	372	2420
9	374	453	1070	1350	770	5700	3240	1750	1020	440	347	1640
10	334	498	799	1350	750	5400	3060	1720	833	420	573	581
11	679	349	616	1200	770	5100	2780	1520	757	419	479	1030
12	384	253	656	1300	820	4700	2720	1210	1840	464	277	552
13	636	420	875	900	770	3460	3000	1080	2420	388	550	603
14	610	571	596	980	800	4040	3490	975	2220	345	268	680
15	1610	464	734	800	800	5000	3720	1060	1290	86	375	2200
16	1040	577	436	940	700	3380	4330	1130	852	300	487	1910
17	763	409	498	920	720	3000	4670	1110	783	468	672	1070
18	800	243	650	940	760	2530	4120	951	587	572	214	843
19	840	489	807	920	620	2650	3730	917	620	415	53	754
20	734	799	665	840	660	2700	3480	521	501	205	472	855
21	320	577	727	860	640	2800	3500	758	646	221	399	797
22	351	516	636	800	630	4500	3810	817	755	91	399	663
23	551	185	390	1050	690	6800	4070	846	813	393	380	172
24	684	393	277	1280	780	8400	4560	928	629	228	350	562
25	734	375	265	980	630	12000	4300	2070	331	311	450	478
26	656	80	320	1200	600	10500	4590	8670	407	335	620	529
27	1070	236	448	1020	660	5200	5550	5340	492	319	810	572
28	1700	596	557	1050	720	3800	6830	3220	495	238	1180	627
29	784	487	490	910	---	3400	6270	5960	539	90	1140	498
30	755	605	721	1070	---	3900	4940	5150	521	277	1250	304
31	741	---	476	1100	---	7000	---	4090	---	284	1580	---
TOTAL	21068	13217	18019	47267	21200	154010	132180	76163	35051	12220	16375	29324
MEAN	680	441	581	1525	757	4968	4406	2457	1168	394	528	977
MAX	1700	799	1070	6800	1050	13000	7900	8670	3330	1190	1580	4760
MIN	78	80	89	800	600	550	2720	521	331	86	53	172

CAL YR 1978 TOTAL 612943 MEAN 1679 MAX 16900 MIN 58
WTR YR 1979 TOTAL 576094 MEAN 1578 MAX 13000 MIN 53

04290500 WINOOSKI RIVER NEAR ESSEX JUNCTION, VT--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1953, June 1976 to April 1979 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO APRIL 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)
OCT 18...	1130	1600	105	6.6	7.0	10	2	--	10.2	84	6
APR 16...	1050	4380	97	6.9	3.0	5	--	5.0	13.4	99	--

DATE	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	C.O.D. TOTAL IN BOTTOM MATERIAL (MG/KG)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT 18...	--	12000	48	46	30	41	0	34	16	12	7.0
APR 16...	7	5100	260	52	94	28	0	23	5.6	10	8.8

DATE	SOLIDS, SUSP. TOTAL, RESIDUE AT 110 DEG. C (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLATILE IN BOTTOM MATERIAL (MG/KG)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
OCT 18...	20	56	12800	.26	.07	.05	.12	.38	.04	0	3
APR 16...	347	82	5090	.36	.05	.21	.26	.62	.03	0	23

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
OCT 18...	20	<10	3	480	84	50	<.5	0	20	0
APR 16...	10	10	2	620	180	40	.5	0	30	0

DATE	OIL AND GREASE (MG/L)	OIL AND GREASE, TOTAL RECOV. GRAVIMETRIC (MG/L)	CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L)	PCB, TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)
OCT 18...	0	--	.000	.000	.0	.00	.00	.0	.00	.00
APR 16...	--	1	1.45	.000	.0	.00	.00	.0	.00	.00

DATE	DDT, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)
OCT 18...	.00	.00	.00	.00	.00	.00	.00	.00	.00	0
APR 16...	.00	.00	.00	.00	.00	.00	.00	--	.00	0

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

04292000 LAMOILLE RIVER AT JOHNSON, VT

LOCATION.--Lat 44°37'22", long 72°40'50", Lamoille County, Hydrologic Unit 02010005, on right bank above falls, 0.7 mi (1.1 km) upstream from bridge in Johnson and 0.8 mi (1.3 km) upstream from Gihon River.

DRAINAGE AREA.--310 mi² (803 km²).

PERIOD OF RECORD.--Discharge: July to December 1910, June 1911 to December 1913 (monthly discharge only, January to March 1912, Feburary 1913), September 1928 to current year.
Water-quality records: Water year 1953.

REVISIED RECORDS.--WSP 894: Drainage area. WSP 1114: 1933, 1934(M). WSP 1237: 1912(M), 1930, 1932(M).

GAGE.--Water-stage recorder. Altitude of gage is 495 ft (151 m), from topographic map. Prior to Dec. 31, 1913, nonrecording gage at bridge 0.7 mi (1.1 km) downstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. No gage height record Dec. 20 to Jan 24. Some regulation by powerplant upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--53 years (water years 1912-13, 1929-79), 535 ft³/s (15.15 m³/s), 23.44 in/yr (595 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,400 ft³/s (408 m³/s) July 1, 1973, gage height, 17.33 ft (5.282 m), from rating curve extended above 8,500 ft³/s (240 m³/s) on basis of computation of flow over dam at gage height 16.48 ft (5.023 m); minimum, 11 ft³/s (0.31 m³/s) Sept. 2, 1935; minimum daily, 16 ft³/s (0.45 m³/s) Oct. 26, 1947.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,400 ft³/s (150 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 25	2030	*7150	202	12.25	3.734						

Minimum discharge, 46 ft³/s (1.30 m³/s) Mar. 5, caused by temporary ice jam upstream; minimum daily, 82 ft³/s (2.32 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	145	214	180	290	240	2600	956	959	211	136	318
2	109	121	231	2000	320	230	2300	821	690	593	164	200
3	128	121	235	2100	300	220	2100	678	615	582	466	269
4	173	121	200	1300	310	210	1900	1210	597	455	425	238
5	198	121	195	800	290	680	1590	1220	426	361	307	224
6	375	121	190	600	270	2300	1350	952	267	220	232	561
7	380	121	210	500	260	3400	1560	704	195	146	187	1360
8	344	121	240	430	250	2580	911	565	190	145	194	679
9	258	121	290	380	240	1820	864	482	200	160	255	333
10	100	121	362	340	270	1430	795	393	216	175	356	184
11	97	121	245	320	250	1170	705	375	539	171	517	215
12	94	121	180	300	240	958	747	356	1660	143	265	186
13	97	121	165	280	230	752	921	350	1080	112	122	175
14	218	142	177	280	210	755	1160	349	722	112	129	187
15	752	201	187	360	240	958	1100	340	471	112	216	1630
16	411	218	180	330	230	778	1740	340	329	123	267	873
17	362	159	177	310	240	632	1500	330	313	160	225	432
18	348	194	190	290	220	553	1270	278	242	269	211	315
19	254	282	205	280	210	479	1340	228	175	215	155	185
20	155	222	210	270	200	530	1300	225	173	154	215	168
21	135	180	225	270	200	720	1290	196	171	100	255	159
22	121	125	200	360	190	1330	1490	164	165	100	216	155
23	121	145	215	500	190	2050	1540	161	163	101	176	152
24	128	130	200	450	190	3590	1750	174	165	103	166	150
25	177	130	195	410	190	6380	1530	979	144	103	224	147
26	227	140	190	380	300	4700	1700	2000	112	123	562	142
27	634	165	185	350	270	2600	1900	1260	111	137	545	134
28	634	86	180	320	250	1600	2120	789	112	146	639	130
29	321	150	175	300	---	1200	1780	2240	116	143	385	123
30	222	135	175	290	---	1100	1320	1610	140	142	261	82
31	191	---	170	280	---	1900	---	1360	---	120	365	---
TOTAL	7858	4461	6393	15560	6850	47845	43673	22085	11458	5937	8838	10106
MEAN	253	147	206	502	245	1543	1456	712	382	192	285	337
MAX	752	282	362	2100	320	6380	2600	2240	1660	593	639	1630
MIN	94	86	165	180	190	210	705	161	111	100	122	82
CFSM	.82	.47	.67	1.62	.79	4.98	4.70	2.30	1.23	.62	.92	1.09
IN.	.94	.53	.77	1.87	.82	5.74	5.24	2.65	1.37	.71	1.06	1.21

CAL YR 1978 TOTAL 205378 MEAN 563 MAX 3430 MIN 39 CFSM 1.82 IN 24.65
WTR YR 1979 TOTAL 191004 MEAN 523 MAX 6380 MIN 82 CFSM 1.69 IN 22.92

04292500 LAMOILLE RIVER AT EAST GEORGIA, VT

LOCATION.--Lat 44°40'45", long 73°04'23", Franklin County, Hydrologic Unit 02010005, on right bank at East Georgia, 0.5 mi (0.8 km) upstream from railroad bridge, and 1 mi (1.6 km) downstream from Beaver Meadow Brook.

DRAINAGE AREA.--686 mi² (1,777 km²).

PERIOD OF RECORD.--Discharge: August 1929 to current year. Prior to October 1937, published as "near Milton." Water-quality records: Water years 1955, 1967-74.

REVISED RECORDS.--WSP 894: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 285 ft (86.9 m), from topographic map. Prior to Dec. 1, 1937, at site 3.5 mi (5.6 km) downstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Low flow regulated by powerplants upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--50 years, 1,234 ft³/s (34.95 m³/s), 24.43 in/yr (621 mm/yr), adjusted to present drainage area.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,200 ft³/s (657 m³/s) Mar. 19, 1936, gage height, 12.52 ft (3.816 m), site and datum then in use, by computation of peak flow over dam; maximum gage height, 21.64 ft (6.596 m) Mar. 6, 1979, ice jam; minimum daily discharge, 74 ft³/s (2.10 m³/s) Sept. 26, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10,400 ft³/s (290 m³/s) and maximums (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 6	0445	ice jam		*21.64	6.596	Mar. 26	0545	*12700	360	9.71	2.960

Minimum daily discharge, 166 ft³/s (4.70 m³/s) July 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	220	508	400	600	750	560	5800	2290	2220	264	255	721
2	232	473	500	5800	720	530	4870	1860	1560	729	317	594
3	321	414	520	6000	690	500	4720	1560	1560	991	631	613
4	267	374	470	4000	660	490	3900	2190	1300	766	712	1080
5	404	370	450	2000	640	1000	3360	3040	1100	631	604	701
6	678	348	450	1500	620	5000	3010	2460	823	597	546	828
7	1180	331	490	1200	600	6200	2460	1780	684	374	418	4410
8	720	320	570	1000	580	5000	2010	1410	527	272	377	2430
9	607	310	660	920	570	4000	1940	1280	563	240	476	1290
10	483	366	750	840	560	3100	1810	1160	454	286	433	818
11	316	318	580	780	540	2800	1670	961	657	309	632	746
12	255	278	480	720	530	2300	1730	868	2450	267	683	797
13	268	288	440	680	520	1700	1910	857	2220	277	397	686
14	585	333	420	720	500	1900	2360	855	1490	243	269	563
15	1780	534	410	820	500	2370	2500	802	1010	219	293	2070
16	1230	516	420	780	500	1850	3110	748	754	245	845	2110
17	777	484	440	720	500	1550	3520	733	654	253	608	1180
18	678	476	380	680	500	1310	2780	686	558	374	422	836
19	649	734	400	660	500	1210	2490	651	509	386	428	730
20	566	550	520	640	500	1300	2540	485	370	244	491	746
21	388	400	640	650	500	1440	2420	568	419	274	466	636
22	368	320	600	780	500	2440	2770	455	366	227	478	509
23	355	300	520	1000	560	4200	2950	392	344	173	379	479
24	434	330	480	950	570	6360	3540	359	336	166	325	434
25	423	350	470	900	590	9730	3100	827	384	197	672	413
26	497	320	480	880	590	11800	3410	3150	368	216	1160	398
27	1540	300	490	860	620	6220	4050	2680	298	217	996	404
28	1660	310	500	840	600	3130	4870	1560	295	282	1550	342
29	1110	320	460	820	---	2540	4400	2620	274	209	1030	305
30	771	310	440	800	---	2380	3250	3550	218	236	805	359
31	587	---	510	770	---	3890	---	2810	---	272	907	---
TOTAL	20349	11585	15340	40310	16010	98800	93250	45647	24765	10436	18605	28228
MEAN	656	386	495	1300	572	3187	3108	1472	826	337	600	941
MAX	1780	734	750	6000	750	11800	5800	3550	2450	991	1550	4410
MIN	220	278	380	600	500	490	1670	359	218	166	255	305
CFSM	.96	.56	.72	1.90	.83	4.65	4.53	2.15	1.20	.49	.88	1.37
IN.	1.10	.63	.83	2.19	.87	5.36	5.06	2.48	1.34	.57	1.01	1.53

CAL YR 1978 TOTAL 494231 MEAN 1354 MAX 8500 MIN 144 CFSM 1.97 IN 26.80
WTR YR 1979 TOTAL 423325 MEAN 1160 MAX 11800 MIN 166 CFSM 1.69 IN 22.96

04293000 MISSISQUOI RIVER NEAR NORTH TROY, VT

LOCATION.--Lat 44°58'22", long 72°23'15", Orleans County, Hydrologic Unit 02010007, on right bank 200 ft (60 m) upstream from Big Falls, 1.5 mi (2.4 km) downstream from Jay Branch, and 2.2 mi (3.5 km) upstream from North Troy.

DRAINAGE AREA.--131 mi^2 (339 km^2).

PERIOD OF RECORD.--August 1931 to current year.

REVISED RECORDS.--WSP 924: 1940. WSP 1114: 1933(M), 1936-39.

GAGE.--Water-stage recorder. Altitude of gage is 580 ft (177 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Occasional regulation at low flow caused by small powerplant upstream; greater regulation prior to 1967.

AVERAGE DISCHARGE.--48 years, 272 ft^3/s (7.703 m^3/s), 28.20 in/yr (716 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,980 ft^3/s (226 m^3/s) May 3, 1940, gage height, 12.87 ft (3.923 m), from rating curve extended above 5,500 ft^3/s (160 m^3/s) on basis of computation of flow over dam at gage height 11.70 ft (3.566 m); minimum, 9.4 ft^3/s (0.27 m^3/s) Aug. 28, 1949; minimum daily, 11 ft^3/s (0.31 m^3/s) Aug. 28, 1949, Aug. 30, 1953.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,300 ft^3/s (93 m^3/s) and maximums (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 6	1200	ice jam		*8.81	2.68	Mar. 25	2000	*3580	101	8.58	2.62
Mar. 7	0130	3460	98.0	8.43	2.54						

Minimum discharge, 20 ft^3/s (0.57 m^3/s) July 28, 29; minimum daily, 21 ft^3/s (0.59 m^3/s) July 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	99	70	105	120	89	1970	385	550	57	38	109
2	106	84	60	1050	110	90	1150	389	309	102	44	67
3	71	85	56	1520	100	91	1510	294	852	112	39	96
4	60	71	75	591	94	104	858	873	366	67	38	117
5	81	80	100	340	93	310	716	682	220	53	30	78
6	352	82	110	230	84	2210	567	473	195	54	39	220
7	255	63	96	210	83	2840	421	328	143	53	34	811
8	127	73	120	170	85	1370	382	264	117	52	40	256
9	97	61	200	165	78	815	361	247	113	38	30	136
10	68	58	120	150	68	622	326	223	102	38	42	100
11	72	79	94	145	62	513	289	187	139	34	49	117
12	70	43	86	140	72	363	328	165	575	40	44	89
13	72	67	80	150	76	284	440	144	377	46	40	72
14	305	246	74	145	76	348	592	147	193	34	61	89
15	564	235	72	230	75	435	557	127	134	30	123	301
16	226	132	78	190	72	305	872	125	100	35	105	158
17	139	101	82	150	73	249	727	122	92	49	52	92
18	113	247	58	125	71	210	612	105	71	42	32	77
19	104	257	62	110	67	215	560	98	76	32	34	81
20	109	100	96	94	72	256	519	87	64	32	53	85
21	96	78	110	94	82	404	639	84	65	29	41	68
22	86	64	100	140	84	793	774	80	54	28	39	60
23	74	66	95	255	88	1340	898	73	69	26	30	64
24	81	70	78	160	87	2350	913	73	77	25	29	59
25	74	64	82	135	90	3400	736	632	79	24	110	45
26	97	68	82	135	94	2330	988	854	61	25	120	45
27	423	62	86	130	93	811	1060	364	62	37	131	46
28	295	64	85	130	89	500	1110	313	43	21	167	41
29	181	62	85	175	---	429	698	1180	56	23	88	37
30	136	68	76	170	---	512	489	829	53	24	222	40
31	115	---	86	130	---	1530	---	1240	---	23	233	---
TOTAL	4694	2929	2754	7664	2338	26118	22062	11187	5407	1285	2177	3656
MEAN	151	97.6	88.9	247	83.5	843	735	361	180	41.5	70.2	122
MAX	564	257	200	1520	120	3400	1970	1240	852	112	233	811
MIN	45	43	56	94	62	89	289	73	43	21	29	37
CFSM	1.15	.75	.68	1.89	.64	6.44	5.61	2.76	1.37	.32	.54	.93
IN.	1.33	.83	.78	2.18	.66	7.42	6.26	3.18	1.54	.36	.62	1.04

CAL YR 1978 TOTAL 108834 MEAN 298 MAX 3940 MIN 23 CFSM 2.28 IN 30.91
WTR YR 1979 TOTAL 92271 MEAN 253 MAX 3400 MIN 21 CFSM 1.93 IN 26.20

04293500 MISSISQUOI RIVER NEAR EAST BERKSHIRE, VT

LOCATION.--Lat 44°57'30", long 72°41'55", Franklin County, Hydrologic Unit 02010007, on left bank 1.7 mi (2.7 km) north of intersection of State Highways 105 and 118 in East Berkshire, 1.7 mi (2.7 km) upstream from Trout River, 3 mi (5 km) south of Richford, and 3.8 mi (6.1 km) downstream from North Branch.

DRAINAGE AREA.--479 mi^2 (1,241 km^2).

PERIOD OF RECORD.--Discharge: July 1911 to September 1923, October 1928 to current year. Monthly discharge only for some periods, published in WSP 1307. Prior to October 1977, published as "near Richford."

Water-quality records: Water years 1954, 1967-74.

REVISED RECORDS.--WSP 784: Drainage area. WSP 1237: 1913-14(M), 1922(M), 1923, 1929-30. WSP 1307: 1916(M). WSP 1437: 1912.

GAGE.--Water-stage recorder. Altitude of gage is 410 ft (125 m), from topographic map. Prior to Aug. 1, 1915, nonrecording gage at site 0.2 mi (0.3 km) downstream at datum 4.35 ft (1.326 m) lower. Aug. 1, 1915, to Sept. 30, 1923, water-stage recorder at present site and datum. Oct. 1, 1928, to Sept. 30, 1929, nonrecording gage at former site at datum 4.6 ft (1.40 m) lower.

REMARKS.--Records good except those for winter period, which are fair. Diurnal fluctuation at low flow prior to 1934. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--63 years, 927 ft^3/s (26.25 m^3/s), 26.28 in/yr (668 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,200 ft^3/s (487 m^3/s) May 4, 1940, gage height, 15.15 ft (4.618 m), from rating curve extended above 9,300 ft^3/s (260 m^3/s) on basis of computation of peak flow over dam at gage height 14.70 ft (4.481 m), slope-area measurement at gage height 12.90 ft (3.932 m), and study of discharge per foot of width at measuring section; maximum gage height, 18.92 ft (5.767 m) Mar. 15, 1946, ice jam; minimum discharge observed, 8 ft^3/s (0.23 m^3/s) July 14, 1911.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 45,000 ft^3/s (1,270 m^3/s) during flood of November 1927, gage height, 23.1 ft (7.04 m), from floodmarks, from rating curve extended above 9,300 ft^3/s (260 m^3/s) as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 7,600 ft^3/s (220 m^3/s) and maximums (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 7	2300	10000	280	a*16.72	5.096	Mar. 25	2000	*10100	286	11.70	3.566

a Ice jam.

Minimum discharge, 72 ft^3/s (2.04 m^3/s) July 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	418	300	500	730	380	5200	1180	2350	126	81	456
2	159	359	280	3900	680	370	4900	1120	1280	183	98	281
3	203	309	260	3500	640	410	5060	992	1550	337	280	217
4	165	287	350	3000	600	500	4150	1660	1390	237	147	221
5	167	258	450	2000	560	1300	2980	2020	820	178	117	208
6	418	254	480	1300	520	4000	2380	1530	780	140	172	375
7	906	256	450	1000	500	9000	1780	1210	572	130	132	1680
8	570	231	600	900	480	8500	1470	968	417	119	122	1160
9	412	214	880	830	460	4500	1430	841	356	115	109	640
10	318	204	650	800	430	2700	1350	740	346	96	105	452
11	253	196	450	750	410	2100	1260	620	361	90	148	523
12	210	201	350	720	390	1700	1300	527	1090	93	143	428
13	219	168	300	690	380	1400	1430	471	1270	85	119	327
14	782	642	270	750	360	1500	1640	466	807	87	120	538
15	1540	1170	300	900	350	1800	1700	413	514	81	312	1740
16	1210	715	330	840	330	1400	2040	380	373	80	279	1100
17	817	512	340	780	320	1100	2350	373	295	146	201	698
18	583	732	240	730	310	900	1940	338	246	129	140	458
19	504	997	300	690	300	1000	1670	284	204	107	120	850
20	461	600	410	690	330	1200	1510	249	185	82	133	621
21	391	420	460	720	336	1800	1510	227	161	79	129	411
22	339	330	420	820	337	2500	1690	217	155	78	119	356
23	297	310	390	860	400	3820	1790	199	148	76	106	289
24	300	320	370	800	390	6520	2010	188	181	74	106	245
25	275	310	330	730	380	9440	1640	451	201	73	337	210
26	304	310	340	700	390	8820	1800	1680	176	74	417	179
27	1270	290	340	700	400	5810	1950	1250	144	102	610	161
28	1260	300	350	720	390	2960	2220	873	145	81	713	150
29	871	280	350	780	---	1930	1870	1470	120	77	448	142
30	650	290	360	880	---	1640	1420	2430	122	76	381	133
31	508	---	370	780	---	3430	---	3240	---	75	641	---
TOTAL	16476	11883	12070	33760	12103	94430	65440	28607	16759	3506	7085	15249
MEAN	531	396	389	1089	432	3046	2181	923	559	113	229	508
MAX	1540	1170	880	3900	730	9440	5200	3240	2350	337	713	1740
MIN	114	168	240	500	300	370	1260	188	120	73	81	133
CFSM	1.11	.83	.81	2.27	.90	6.36	4.55	1.93	1.17	.24	.48	1.06
IN.	1.28	.92	.94	2.62	.94	7.33	5.08	2.22	1.30	.27	.55	1.18

CAL YR 1978 TOTAL 365001 MEAN 1000 MAX 9870 MIN 79 CFSM 2.09 IN 28.35
WTR YR 1979 TOTAL 317368 MEAN 870 MAX 9440 MIN 73 CFSM 1.82 IN 24.65

04294500 LAKE CHAMPLAIN AT BURLINGTON, VT

LOCATION.--Lat 44°28'52", long 73°13'27", Chittenden County, Hydrologic Unit 02010003, 50 ft (15 m) south of Gulf Oil Co. dock at Burlington, 0.1 mi (0.2 km) north of Burlington Water Department pumping station, and 0.5 mi (0.8 km) north of railroad station.

PERIOD OF RECORD.--Gage heights: May 1907 to current year.
Water-quality records: Water year 1971.

REVISED RECORDS.--WSP 684: 1912-29 (datum correction). WSP 1207: 1938 (datum correction).

GAGE.--Water-stage recorder. Datum of gage is 92.86 ft (28.304 m) National Geodetic Vertical Datum of 1929. Prior to July 20, 1937, nonrecording gage at site 0.7 mi (1.1 km) south, and July 20, 1937, to Sept. 7, 1939, nonrecording gage at site 0.1 mi (0.2 km) south, both at present datum.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 8.80 ft (2.682 m) Apr. 4, 1976; minimum observed, -0.25 ft (-0.076 m) Dec. 4, 1908.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 7.04 ft (2.146 m) Apr. 6, affected by seiche; minimum, 0.92 ft (0.280 m) Dec. 4.

MEAN GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.18	1.42	1.05	1.17	2.78	2.57	6.54	6.48	4.91	3.29	2.40	2.22
2	1.22	1.39	1.05	1.37	2.78	2.56	6.95	6.44	4.90	3.27	2.39	2.18
3	1.23	1.40	1.02	1.72	2.78	2.54	6.88	6.38	4.88	3.26	2.40	2.19
4	1.14	1.37	.99	1.95	2.77	2.54	6.96	6.34	4.84	3.22	2.40	2.21
5	1.16	1.38	1.02	2.09	2.78	2.77	6.98	6.31	4.79	3.20	2.39	2.21
6	1.21	1.34	1.03	2.16	2.75	3.43	6.99	6.27	4.76	3.18	2.38	2.31
7	1.23	1.36	1.04	2.23	2.74	4.16	7.00	6.21	4.69	3.13	2.36	2.56
8	1.23	1.35	1.05	2.32	2.74	4.70	6.95	6.12	4.61	3.07	2.32	2.70
9	1.21	1.31	1.10	2.34	2.73	5.01	6.91	6.01	4.56	3.03	2.29	2.75
10	1.19	1.33	1.13	2.37	2.72	5.20	6.92	5.95	4.47	3.00	2.30	2.72
11	1.19	1.28	1.12	2.38	2.72	5.37	6.86	5.86	4.37	2.97	2.27	2.69
12	1.14	1.30	1.11	2.38	2.71	5.47	6.83	5.71	4.38	2.93	2.26	2.72
13	1.19	1.23	1.10	2.40	2.71	5.48	6.74	5.63	4.36	2.90	2.24	2.69
14	1.30	1.18	1.13	2.41	2.70	5.49	6.65	5.56	4.32	2.87	2.18	2.65
15	1.35	1.17	1.10	2.44	2.70	5.56	6.64	5.46	4.25	2.82	2.15	2.79
16	1.40	1.20	1.10	2.44	2.69	5.59	6.64	5.38	4.19	2.80	2.16	2.88
17	1.42	1.12	1.12	2.46	2.68	5.60	6.65	5.27	4.15	2.79	2.15	2.89
18	1.40	1.15	1.11	2.49	2.67	5.59	6.64	5.16	4.09	2.79	2.09	2.88
19	1.42	1.18	1.11	2.49	2.66	5.53	6.60	5.04	4.03	2.76	2.07	2.90
20	1.43	1.20	1.11	2.49	2.63	5.49	6.54	4.94	3.97	2.71	2.09	2.88
21	1.38	1.20	1.12	2.55	2.60	5.49	6.47	4.83	3.88	2.66	2.10	2.77
22	1.36	1.19	1.13	2.59	2.58	5.52	6.39	4.75	3.80	2.63	2.08	2.80
23	1.39	1.14	1.12	2.59	2.56	5.59	6.36	4.65	3.74	2.61	2.05	2.79
24	1.39	1.10	1.13	2.60	2.55	5.74	6.33	4.59	3.67	2.57	2.01	2.77
25	1.32	1.14	1.20	2.64	2.56	5.91	6.28	4.62	3.62	2.53	2.05	2.69
26	1.30	1.13	1.21	2.65	2.57	6.25	6.19	4.66	3.56	2.49	2.09	2.67
27	1.39	1.10	1.21	2.65	2.58	6.41	6.24	4.67	3.45	2.51	2.14	2.65
28	1.40	1.09	1.20	2.67	2.57	6.53	6.38	4.68	3.41	2.51	2.15	2.59
29	1.46	1.07	1.20	2.70	---	6.64	6.47	4.73	3.36	2.48	2.15	2.59
30	1.42	1.06	1.19	2.72	---	6.47	6.49	4.79	3.31	2.44	2.19	2.57
31	1.37	---	1.15	2.76	---	6.50	---	4.86	---	2.40	2.23	---
MEAN	1.30	1.23	1.11	2.36	2.68	5.09	6.65	5.43	4.18	2.83	2.21	2.63
MAX	1.46	1.42	1.21	2.76	2.78	6.64	7.00	6.48	4.91	3.29	2.40	2.90
MIN	1.14	1.06	.99	1.17	2.55	2.54	6.19	4.59	3.31	2.40	2.01	2.18

CAL YR 1978 MEAN 3.51 MAX 7.76 MIN .99
WTR YR 1979 MEAN 3.14 MAX 7.00 MIN .99

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY
(National stream-quality accounting network station)
(National pesticide network station)

LOCATION.--Lat 44°59'46", long 73°21'37", Clinton County, Hydrologic Unit 02010006, on left bank at outlet of Lake Champlain in Rouses Point, and 1.0 mi (1.6 km) south of Fort Montgomery ruins. Water-quality sampling site at stage station.

DRAINAGE AREA.--8,277 mi² (21,437 km²).

WATER-STAGE RECORDS

PERIOD OF RECORD.--October 1863 to December 1870 (maximum and minimum monthly gage heights at St. Johns, Quebec, published in WSP 97) and March 1871 to current year (daily gage heights prior to October 1970, elevations thereafter: those for 1871-1907 published in WSP 894). Gage heights prior to Oct. 1, 1925, published as "Richelieu River at Fort Montgomery, Rouses Point." Discharge records for January 1875 to September 1916 at "Chambly, Quebec," published in WSP 65, 82, 97, 129, 170, 206, 424, and 1307 have been found to be unreliable and should not be used. Daily discharge record for "Richelieu River at Fryers Rapids, Quebec," published in Water Survey of Canada annual reports.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. March 1871 to May 1923, nonrecording gage located in Fort Montgomery and May 1923 to October 1938, nonrecording gage at present site. Prior to October 1970, at datum 93.00 ft (28.346 m) higher.

REMARKS.--Area of lake surface about 490 mi² (1,269 km²). Total volume below 92.5 ft (28.19 m) elevation, reported by Lake Champlain Studies Center, 902.2 bil ft³ (25,600 hm³).

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 101.80 ft (31.029 m) Mar. 30, 1903; minimum observed, 92.17 ft (28.093 m) Oct. 23, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known since at least 1827, 102.1 ft (31.12 m) May 4, 1869, from marks at railroad bridge near present gage, according to data published on p. 428 of the Report of the Board of Engineers on Deep Waterways, 1900: U.S. 56th Cong., 2d sess. H. Doc. 149.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 100.24 ft (30.55 m) Apr. 2, minimum, 93.73 ft (28.57 m) Nov. 12.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94.27	94.26	93.99	94.12	95.64	95.39	99.36	99.34	97.74	96.17	95.29	95.16
2	94.04	94.32	93.85	94.19	95.63	95.40	99.77	99.25	97.76	96.15	95.36	95.23
3	94.07	94.25	93.93	94.57	95.63	95.42	99.70	99.24	97.75	96.07	95.30	95.09
4	94.35	94.31	94.03	94.90	95.64	95.45	99.76	99.16	97.72	96.03	95.27	95.03
5	94.11	94.23	93.92	94.99	95.62	95.66	99.92	99.09	97.69	95.99	95.27	95.06
6	94.14	94.26	93.90	95.06	95.60	96.26	99.92	99.09	97.60	95.97	95.20	95.07
7	94.12	94.18	93.87	95.10	95.60	97.00	99.67	99.03	97.60	95.97	95.28	95.36
8	94.05	94.22	93.90	95.16	95.61	97.53	99.75	98.98	97.60	95.97	95.19	95.45
9	94.09	94.26	93.90	95.24	95.60	97.84	99.68	98.90	97.46	95.92	95.12	95.55
10	94.06	94.14	93.91	95.22	95.60	98.05	99.64	98.76	97.49	95.90	95.13	95.74
11	94.08	94.23	93.99	95.24	95.61	98.19	99.63	98.69	97.44	95.85	95.10	95.57
12	94.24	94.00	94.05	95.26	95.61	98.29	99.57	98.74	97.25	95.80	95.05	95.55
13	94.03	94.31	94.08	95.26	95.59	98.40	99.58	98.53	97.20	95.76	95.02	95.67
14	94.04	94.42	93.97	95.30	95.58	98.38	99.61	98.41	97.22	95.72	95.16	95.74
15	94.17	94.00	94.08	95.28	95.56	98.37	99.49	98.32	97.20	95.78	95.01	95.65
16	94.21	94.03	94.01	95.29	95.55	98.44	99.46	98.17	97.10	95.74	94.95	95.73
17	94.26	94.45	93.95	95.29	95.54	98.42	99.46	98.10	97.04	95.61	94.97	95.86
18	94.36	94.05	93.91	95.30	95.54	98.38	99.41	98.05	96.86	95.61	95.10	95.87
19	94.26	94.05	93.93	95.34	95.52	98.35	99.37	97.94	96.83	95.63	95.00	95.67
20	94.28	93.97	93.96	95.35	95.52	98.31	99.36	97.87	96.80	95.61	94.95	95.82
21	94.36	94.01	94.03	95.38	95.50	98.31	99.31	97.75	96.80	95.58	94.93	95.94
22	94.34	94.03	94.02	95.45	95.45	98.34	99.26	97.55	96.76	95.55	94.91	95.60
23	94.16	94.27	94.01	95.46	95.44	98.41	99.16	97.51	96.64	95.46	94.99	95.62
24	94.22	94.12	93.99	95.44	95.41	98.56	99.14	97.34	96.52	95.47	95.06	95.63
25	94.48	93.86	93.99	95.40	95.38	98.73	99.16	97.31	96.41	95.46	95.01	95.74
26	94.30	93.84	94.08	95.45	95.37	99.07	99.19	97.46	96.46	95.51	94.95	95.55
27	94.23	93.96	94.04	95.49	95.42	99.23	99.10	97.61	96.52	95.37	94.97	95.55
28	94.32	94.01	94.02	95.51	95.41	99.35	99.19	97.53	96.30	95.35	95.05	95.60
29	94.25	94.06	94.04	95.55	---	99.46	99.31	97.55	96.27	95.30	95.14	95.46
30	94.52	93.99	94.05	95.56	---	99.29	99.36	97.63	96.23	95.30	95.10	95.50
31	94.37	---	94.10	95.62	---	99.32	---	97.69	---	95.37	95.04	---
MEAN	94.22	94.14	93.98	95.22	95.54	97.92	99.48	98.28	97.08	95.71	95.09	95.54
MAX	94.52	94.45	94.10	95.62	95.64	99.46	99.92	99.34	97.76	96.17	95.36	95.94
MIN	94.03	93.84	93.85	94.12	95.37	95.39	99.10	97.31	96.23	95.30	94.91	95.03

CAL YR 1978 MEAN 96.38 MAX 100.53 MIN 93.84
WTR YR 1979 MEAN 96.01 MAX 99.92 MIN 93.84

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966-67, 1969-72, 1974 to current year.
CHEMICAL DATA: 1966-67 (a), 1969 (b), 1970 (c), 1971-72 (b), 1974-79 (c).
MINOR ELEMENTS DATA: 1974-79 (b).
PESTICIDE DATA: 1976-79 (b).
ORGANIC DATA: OC--1974 (a), 1975-77 (b), 1978 (a), 1979 (c).
PCB--1978-79 (b).
NUTRIENT DATA: 1970 (c), 1971-72 (b), 1974 (b), 1975-79 (c).
BIOLOGICAL DATA:
Bacteria--1974 (a), 1975-79 (c).
Phytoplankton--1974 (a), 1975-78 (c), 1979 (b).
Periphyton--1975 (c), 1976-79 (b).
SEDIMENT DATA: 1975-79 (c).

COOPERATION.--Pesticide samples were collected by the U.S. Geological Survey and were analyzed by the U.S. Environmental Protection Agency.

WATER QUALITY DATA, WATER YEAR, OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT 02...	1400	142	7.3	13.0	1.0	9.8	92	K4	<1	58	14	16
NOV 01...	1300	160	7.4	8.0	3.0	10.2	84	K3	<1	56	12	16
APR 23...	1230	148	7.8	9.0	2.0	12.8	108	K2	<1	53	18	15
MAY 16...	1200	135	7.4	12.5	1.0	11.2	102	K2	K1	52	17	15
JUN 19...	1000	140	7.8	17.0	1.0	9.3	96	K2	<1	54	15	16
JUL 17...	1200	135	7.8	22.0	.00	8.6	98	K1	<1	55	9	16
AUG 16...	1030	140	7.5	19.0	2.0	8.4	90	K12	K1	61	16	19
SEP 05...	1100	136	7.8	19.0	1.0	9.3	100	K2	<1	55	11	16

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)
OCT 02...	4.5	5.0	1.2	44	15	7.3	.1	.8	83	76	.03	.04
NOV 01...	3.9	5.1	1.2	44	12	7.2	.1	.6	80	73	.09	.01
APR 23...	3.7	4.8	1.1	35	12	7.1	.1	1.3	77	66	1.0	.32
MAY 16...	3.5	5.0	1.1	35	12	7.0	.0	.6	82	65	.16	.01
JUN 19...	3.5	4.9	1.0	39	12	7.1	.1	.2	91	68	.05	.05
JUL 17...	3.7	4.9	.9	46	12	6.8	.1	.7	71	73	.05	.01
AUG 16...	3.2	3.7	1.0	45	17	7.4	.1	.9	73	79	.02	.02
SEP 05...	3.7	4.9	1.0	44	11	7.7	.0	.8	83	72	.02	.04

K Results based on colony count outside the acceptable range (non-ideal colony count).

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY--Continued

WATER QUALITY DATA, WATER YEAR, OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)
OCT 02...	.21	.25	.24	.28	.01	.00	--	--	--	--	--	--
NOV 01...	.26	.27	.17	.36	.01	.00	--	--	--	--	--	--
APR 23...	.00	.30	.06	1.3	.00	.01	3	1	0	0	0	0
MAY 16...	.24	.25	.20	.41	.01	.00	--	--	--	--	--	--
JUN 19...	.20	.25	.23	.30	.01	.00	3	0	0	10	3	0
JUL 17...	.29	.30	.23	.35	.01	.01	--	--	--	--	--	--
AUG 16...	.31	.33	.20	.35	.02	.00	4	1	0	10	1	0
SEP 05...	.34	.38	.32	.40	.01	.00	2	1	100	30	0	1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)
OCT 02...	--	--	--	--	--	--	--	--	--	--	--	--
NOV 01...	--	--	--	--	--	--	--	--	--	--	--	--
APR 23...	20	10	2	1	3	1	140	20	7	5	0	1
MAY 16...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 19...	40	20	1	0	7	2	70	10	5	3	10	10
JUL 17...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 16...	20	30	0	0	4	1	90	10	2	4	20	3
SEP 05...	20	<10	0	0	3	3	80	40	3	2	10	3

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)
OCT 02...	--	--	--	--	--	--	--	--	1.2	--	--
NOV 01...	--	--	--	--	--	--	--	--	3.3	--	--
APR 23...	<.5	<.5	0	0	0	0	120	0	--	5.4	.4
MAY 16...	--	--	--	--	--	--	--	--	4.2	--	--
JUN 19...	<.5	<.5	0	0	0	0	20	10	--	11	.6
JUL 17...	--	--	--	--	--	--	--	--	3.9	--	--
AUG 16...	<.5	<.5	0	0	0	0	50	30	--	5.6	.5
SEP 05...	<.5	<.5	0	0	0	0	100	30	--	6.3	.4

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY--Continued

PESTICIDE ANALYSES, AUGUST 1978 TO SEPTEMBER 1979

DATE	TIME	PCB, TOTAL (UG/L)	AROCLOR TOTAL 1254 PCB SERIES (UG/L)	AROCLOR TOT. IN BOT MAT 1254 PCB SERIES (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	P,P' DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)
AUG , 1978												
08...	1100	ND	--	--	ND	--	ND	--	ND	--	--	ND
NOV												
01...	1300	ND	.0	16	ND	ND	ND	ND	ND	2.7	6.0	ND
APR , 1979												
23...	1230	ND	--	--	ND	--	ND	--	ND	--	--	ND
MAY												
16...	1200	ND	--	--	ND	--	ND	--	ND	--	--	ND
AUG												
16...	1030	ND	--	--	ND	--	ND	--	ND	--	--	ND

DATE	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
AUG , 1978												
08...	ND	--	ND	--	ND	--	ND	--	ND	--	ND	--
NOV												
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR , 1979												
23...	ND	--	ND	--	ND	--	ND	--	ND	--	ND	--
MAY												
16...	ND	--	ND	--	ND	--	ND	--	ND	--	ND	--
AUG												
16...	ND	--	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOTAL (UG/L)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)
AUG , 1978												
08...	ND	--	ND	--	ND	--	ND	--	ND	--	ND	--
NOV												
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR , 1979												
23...	ND	--	ND	--	ND	--	ND	--	ND	--	ND	--
MAY												
16...	ND	--	ND	--	ND	--	ND	--	ND	--	ND	--
AUG												
16...	ND	--	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	PARATHION, TOTAL (UG/L)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	ATRAZINE, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	SIMAZINE TOTAL COULSON COND. (UG/L)
AUG , 1978											
08...	ND	--	ND	--	ND	--	ND	ND	ND	ND	ND
NOV											
01...	ND	ND	ND	ND	ND	ND	--	--	--	--	--
APR , 1979											
23...	ND	--	ND	--	ND	--	--	--	--	--	--
MAY											
16...	ND	--	ND	--	ND	--	--	--	--	--	--
AUG											
16...	ND	--	ND	--	ND	--	--	--	--	--	--

ND Material specifically analyzed for, but not detected.

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY--Continued

SUSPENDED-SEDIMENT MEASUREMENTS, WATER YEAR, OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SEDIMENT, SUSPENDED (MG/L)
OCT 02...	1400	17
NOV 01...	1300	17
APR 23...	1230	0
MAY 16...	1200	0
JUN 19...	1000	1
JUL 17...	1200	0
AUG 16...	1030	2
SEP 05...	1100	1

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, JULY 1978 TO SEPTEMBER 1979

PERIPHYTON

Dates of exposure	Length of exposure (days)	Biomass (g/m^2)		Chlorophyll a (mg/m^2)	Chlorophyll b (mg/m^2)	Sampling method
		Dry weight	Ash weight			
June 19 to July 17	28	1.34	0.870	0.730	0.250	Polyethylene strip
July 17 to Sept. 5	50	6.54	3.94	3.53	.670	Polyethylene strip
Sept. 5 to Oct. 1	26	8.82	6.54	20.1	4.84	Polyethylene strip

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, JULY 1978 TO SEPTEMBER 1979

PHYTOPLANKTON

DATE	JUL 11,78	AUG 8,78	SEP 5,78	OCT 2,78	MAY 16,79
TIME	1230	1100	1145	1400	1200
TOTAL CELLS/ML	380	780	2200	1900	220
DIVERSITY: DIVISION	1.3	1.4	0.6	1.9	0.5
.CLASS	1.3	1.7	0.6	1.9	0.5
..ORDER	1.6	2.2	1.4	2.3	0.8
...FAMILY	1.6	2.2	1.5	2.9	0.8
....GENUS	1.6	2.2	1.6	2.9	0.8

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	*	0	--	-	--	-
...CHLOROCOCCACEAE										
....CHLOROCOCCUM	--	-	--	-	--	-	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	--	-	--	-	--	-	--	-
....CHLORELLA	--	-	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	28	1	--	-	--	-
....GLOEOACTINIUM	--	-	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	*	0	--	-	--	-
...SCENEDESMACEAE										
....SCENEDESMUS	44	12	--	-	21	1	290#	15	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	87	11	*	0	--	-	--	-
...VOLVOCACEAE										
....EUDORINA	--	-	--	-	57	3	--	-	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....STAURASTRUM	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	22	6	43	6	*	0	110	6	--	-
....MELOSIRA	--	-	--	-	--	-	--	-	--	-
....STEPHANODISCUS	--	-	--	-	--	-	--	-	13	6
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	--	-	--	-	--	-
....COCCONEIS	--	-	22	3	--	-	--	-	--	-
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	--	-	14	1	--	-	180#	82
....FRAGILARIA	200#	53	--	-	71	3	--	-	--	-
...NAVICULACEAE										
....NAVICULA	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	--	-	--	-	--	-	100	5	--	-
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...OCHROMONADACEAE										
....OCHROMONAS	--	-	220#	28	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE										
..CRYPTOMONADALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	--	-	--	-	330#	17	--	-
...CRYPTOMONADACEAE										
....CRYPTOMONAS	--	-	--	-	--	-	260	14	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....AGMENELLUM	--	-	--	-	--	-	--	-	--	-
....ANACYSTIS	--	-	130#	17	1500#	67	210	11	26	12
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	280#	36	460#	21	410#	22	--	-
...OSCILLATORIACEAE										
....OSCILLATORIA	110#	29	--	-	57	3	160	9	--	-
....SCHIZOTHRIX	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, JULY 1978 TO SEPTEMBER 1979--Continued

PHYTOPLANKTON

DATE TIME	JUN 19,79 1000		JUL 17,79 1200		AUG 16,79 1030		SEP 5,79 1100	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	--	-	--	-	--	-
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	52#	21	--	-	--	-
....ANACYSTIS	39#	75	--	-	230#	23	3300#	38
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	-	570#	56	--	-
....SCHIZOTHRIX	--	-	--	-	--	-	1600#	19
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..PERIDINIALES								
...GLENODINIACEAE								
....GLENODINIUM	--	-	--	-	--	-	*	0

NOTE: # - DOMINANT ORGANISM, EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, JULY 1978 TO SEPTEMBER 1979

PHYTOPLANKTON

DATE TIME	JUL 11,78 1230		AUG 8,78 1100		SEP 5,78 1145		OCT 2,78 1400		MAY 16,79 1200	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	10	1	--	-
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..PERIDINIALES										
...GLENODINIACEAE										
....GLENODINIUM	--	-	--	-	--	-	--	-	--	-

DATE TIME	JUN 19,79 1000		JUL 17,79 1200		AUG 16,79 1030		SEP 5,79 1100	
TOTAL CELLS/ML	52		240		1000		8600	
DIVERSITY: DIVISION	0.8		0.7		0.9		1.1	
.CLASS	0.8		0.7		0.9		1.1	
..ORDER	0.8		1.0		1.7		1.6	
...FAMILY	0.8		1.3		1.9		1.8	
....GENUS	0.8		2.1		2.0		2.0	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	13	5	--	-	--	-
...CHLOROCOCCACEAE								
....CHLOROCOCCUM	--	-	--	-	26	3	130	1
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	13	1	--	-
....CHLORELLA	--	-	--	-	--	-	3000#	35
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-
....GLOEOACTINIUM	--	-	100#	42	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	380	4
....OOCYSTIS	--	-	52#	21	--	-	--	-
....TETRAEDRON	--	-	13	5	13	1	--	-
...SCENEDESMACEAE								
....SCENEDESMUS	--	-	--	-	26	3	84	1
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-
...VOLVOCACEAE								
....EUDORINA	--	-	--	-	--	-	--	-
..ZYGNEMATALES								
...DESMIDIACEAE								
....STAURASTRUM	--	-	13	5	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	--	-	13	1	63	1
....MELOSIRA	--	-	--	-	26	3	--	-
....STEPHANODISCUS	--	-	--	-	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	13#	25	--	-	--	-	--	-
....COCCONEIS	--	-	--	-	--	-	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	--	-	--	-	--	-
....FRAGILARIA	--	-	--	-	77	8	--	-
...NAVICULACEAE								
....NAVICULA	--	-	--	-	13	1	--	-
...NITZSCHIACEAE								
....NITZSCHIA	--	-	--	-	--	-	*	0
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...OCHROMONADACEAE								
....OCHROMONAS	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

04295500 LAKE MEMPHREMAGOG AT NEWPORT, VT

LOCATION.--Lat 44°56'15", long 72°12'21", Orleans County, Hydrologic Unit 01110000, on west side of bridge on U.S. Highway 5 at Newport.

PERIOD OF RECORD.--Gage heights: May 1931 to current year.

GAGE.--Water-stage recorder. Datum of gage is 673.00 ft (205.130 m) National Geodetic Vertical Datum of 1929. Prior to July 21, 1934, nonrecording gage on highway bridge 0.1 mi (0.2 km) southeast at same datum. July 21, 1934, to Aug. 22, 1961, nonrecording gage on east side, and Aug. 23, 1961, to Oct. 18, 1966, on west side of bridge at present site and datum.

REMARKS.--Elevation of lake regulated by powerplant and gates at Magog, Quebec.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 12.92 ft (3.938 m) Apr. 20, 1933; minimum recorded, 6.48 ft (1.975 m) Nov. 2, 1968 (affected by seiche), but may have been lower during period of use of nonrecording gage.

EXTREMES FOR CURRENT YEAR.--Maximum gage height not determined; maximum daily, 10.17 ft (3.100 m) Apr. 4, 5; minimum gage height not determined; minimum daily, 6.66 ft (2.030 m) Mar. 3.

MEAN GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.50	7.90	7.51	7.80	7.82	6.70	9.80	9.20	9.46	8.77	8.39	8.35
2	7.47	7.92	7.48	7.92	7.71	6.67	9.92	9.25	9.44	8.80	8.42	8.32
3	7.45	7.92	7.48	8.12	7.65	6.66	10.06	9.28	9.55	8.82	8.42	8.37
4	7.48	7.93	7.50	8.23	7.61	6.69	10.17	9.33	9.64	8.81	8.42	8.40
5	7.46	7.92	7.51	8.30	7.60	6.75	10.17	9.41	9.68	8.78	8.42	8.37
6	7.51	7.93	7.49	8.35	7.57	6.94	10.13	9.43	9.71	8.75	8.42	8.42
7	7.52	7.95	7.49	8.40	7.55	7.20	10.10	9.42	9.63	8.73	8.38	8.53
8	7.53	7.94	7.51	8.48	7.50	7.60	10.00	9.42	9.53	8.72	8.34	8.55
9	7.55	7.91	7.53	8.52	7.46	7.80	9.90	9.43	9.48	8.72	8.34	8.54
10	7.58	7.90	7.54	8.52	7.42	8.05	9.78	9.41	9.45	8.71	8.30	8.51
11	7.48	7.85	7.54	8.52	7.40	8.20	9.68	9.37	9.43	8.71	8.32	8.53
12	7.50	7.89	7.50	8.52	7.35	8.30	9.57	9.26	9.49	8.71	8.31	8.42
13	7.48	7.78	7.50	8.53	7.30	8.35	9.47	9.28	9.48	8.69	8.29	8.42
14	7.58	7.79	7.49	8.53	7.26	8.35	9.46	9.31	9.37	8.68	8.25	8.45
15	7.65	7.84	7.50	8.51	7.21	8.35	9.45	9.22	9.26	8.62	8.26	8.50
16	7.68	7.82	7.55	8.51	7.18	8.33	9.46	9.19	9.26	8.60	8.27	8.55
17	7.70	7.70	7.58	8.49	7.14	8.30	9.48	9.18	9.29	8.67	8.21	8.60
18	7.73	7.78	7.64	8.47	7.10	8.25	9.44	9.15	9.33	8.67	8.20	8.58
19	7.73	7.83	7.63	8.45	7.06	8.20	9.38	9.09	9.28	8.62	8.17	8.50
20	7.73	7.87	7.62	8.43	7.02	8.15	9.31	9.06	9.20	8.60	8.20	8.48
21	7.76	7.82	7.65	8.47	6.98	8.16	9.26	9.05	9.12	8.57	8.21	8.43
22	7.75	7.77	7.66	8.46	6.95	8.18	9.24	9.05	9.05	8.54	8.22	8.35
23	7.73	7.68	7.66	8.44	6.90	8.26	9.24	8.97	9.01	8.53	8.19	8.25
24	7.75	7.68	7.67	8.38	6.85	8.50	9.20	8.94	9.02	8.50	8.16	8.20
25	7.73	7.70	7.70	8.32	6.80	8.96	9.13	8.99	9.01	8.48	8.18	8.20
26	7.72	7.70	7.72	8.25	6.77	9.35	9.07	9.06	8.95	8.44	8.25	8.15
27	7.82	7.65	7.75	8.18	6.76	9.66	9.06	9.10	8.84	8.48	8.31	8.10
28	7.88	7.67	7.79	8.12	6.74	9.69	9.11	9.13	8.81	8.48	8.39	8.05
29	7.93	7.60	7.75	8.05	---	9.70	9.12	9.20	8.80	8.46	8.39	8.00
30	7.87	7.57	7.74	7.96	---	9.65	9.15	9.30	8.77	8.43	8.39	8.05
31	7.92	---	7.75	7.90	---	9.65	---	9.42	---	8.36	8.36	---
MEAN	7.65	7.81	7.59	8.33	7.24	8.18	9.54	9.22	9.28	8.63	8.30	8.37
MAX	7.93	7.95	7.79	8.53	7.82	9.70	10.17	9.43	9.71	8.82	8.42	8.60
MIN	7.45	7.57	7.48	7.80	6.74	6.66	9.06	8.94	8.77	8.36	8.16	8.00

CAL YR 1978 MEAN 8.39 MAX 10.58 MIN 6.84
WTR YR 1979 MEAN 8.35 MAX 10.17 MIN 6.66

NOTE.--No gage-height record Oct. 1-24, Nov. 28-30, Dec. 12 to Jan. 4, Jan. 24 to Apr. 4, Aug. 2-5, 28-30, Sept. 12-30.

04296000 BLACK RIVER AT COVENTRY, VT

LOCATION.--Lat 44°52'08", long 72°16'14", Orleans County, Hydrologic Unit 01110000, on right bank 15 ft (5 m) downstream from highway bridge, 800 ft (250 m) upstream from Stony Brook, and 0.4 mi (0.6 km) northwest of Coventry.

DRAINAGE AREA.--122 mi^2 (316 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1951 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 725 ft (221 m), from topographic map.

REMARKS.--Records good except those for winter period and period of no gage-height record May 26 to July 2, which are fair. Occasional diurnal fluctuation at low flow by mill upstream; greater regulation prior to 1960. Observation of water temperature and specific conductance made during the year.

AVERAGE DISCHARGE.--28 years, 203 ft^3/s (5.749 m^3/s), 22.60 in/yr (574 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,740 ft^3/s (106 m^3/s) Apr. 2, 1976, gage height, 7.91 ft (2.411 m); minimum, 11 ft^3/s (0.31 m^3/s) Aug. 29 to Sept. 1, 1953; minimum daily, 11 ft^3/s (0.31 m^3/s) Aug. 29 to Sept. 1, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,350 ft^3/s (66.6 m^3/s) Mar. 26, gage height, 6.81 ft (2.076 m), no other peak above base of 1,700 ft (48 m); minimum discharge, 19 ft^3/s (0.54 m^3/s) July 31 to Aug. 2; minimum daily, 20 ft^3/s (0.57 m) July 29, 31, Aug. 1.

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 19	1930	*1790	50.7	*6.24	1.902						

Minimum discharge, 22 ft^3/s (0.62 m^3/s) Aug. 23, 24, Sept. 4, 5, 6, 20; minimum daily, 22 ft^3/s (0.62 m^3/s) Aug. 23, Sept. 5, 6, 20.

DISCHARGE, STREAM (CUBIC FEET PER SECOND), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	63	44	77	115	86	941	323	500	110	20	62
2	75	58	44	357	105	93	948	269	300	130	23	44
3	60	54	54	641	98	105	1120	223	800	140	41	48
4	48	50	42	532	105	125	911	317	370	103	81	87
5	66	47	46	400	99	150	797	387	230	67	49	83
6	190	46	51	330	105	600	735	332	170	55	44	68
7	140	46	52	250	100	1050	613	238	140	51	49	266
8	90	43	55	190	84	800	492	190	115	50	42	224
9	64	42	71	160	80	600	431	165	110	40	38	108
10	50	41	96	135	74	400	379	146	115	37	38	69
11	47	44	154	120	69	320	338	131	150	34	45	56
12	37	42	73	115	72	260	315	120	520	38	54	52
13	44	38	49	105	77	230	345	113	350	44	42	47
14	128	43	49	100	70	270	403	109	200	34	37	46
15	227	70	48	98	79	330	441	106	140	30	38	249
16	146	76	48	96	72	250	560	96	100	35	49	256
17	90	57	49	94	70	200	578	90	90	48	47	182
18	68	84	47	86	66	170	535	83	75	42	37	89
19	61	135	48	82	64	175	507	78	78	40	33	69
20	58	101	59	83	63	210	466	72	62	32	34	63
21	54	70	60	94	68	300	459	70	68	29	40	58
22	49	62	59	110	70	600	491	68	61	28	36	52
23	45	42	57	130	74	856	499	64	67	26	30	47
24	44	40	54	125	73	1280	529	68	75	25	28	43
25	43	40	58	120	72	2020	483	265	76	24	39	39
26	47	43	55	110	71	2200	471	800	58	26	104	37
27	143	38	53	105	70	1340	465	360	57	35	93	35
28	192	39	56	105	76	886	488	320	40	27	134	33
29	127	40	57	120	---	737	459	850	55	20	98	32
30	88	44	57	125	---	600	399	730	50	21	70	32
31	71	---	56	120	---	689	---	880	---	20	76	---
TOTAL	2632	1638	1801	5315	2241	17932	16598	8063	5222	1441	1587	2576
MEAN	84.9	54.6	58.1	171	80.0	578	553	260	174	46.5	51.2	85.9
MAX	227	135	154	641	115	2200	1120	880	800	140	134	266
MIN	37	38	42	77	63	86	315	64	40	20	20	32
CFSM	.70	.45	.48	1.40	.66	4.74	4.53	2.13	1.43	.38	.42	.70
IN.	.80	.50	.55	1.62	.68	5.47	5.06	2.46	1.59	.44	.48	.79

CAL YR 1978 TOTAL 69449 MEAN 190 MAX 1310 MIN 22 CFSM 1.56 IN 21.18
WTR YR 1979 TOTAL 67046 MEAN 184 MAX 2200 MIN 20 CFSM 1.51 IN 20.44

04296000 BLACK RIVER AT COVENTRY, VT.--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1977 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1977 to current year.
WATER TEMPERATURES: November 1977 to current year.

INSTRUMENTATION.--Water-quality monitor since November 1977.

REMARKS.--Interruptions in the record were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 229 micromhos Aug. 8, 1978; minimum recorded, 62 micromhos Jan. 28, 29, 1978.
WATER TEMPERATURES: Maximum recorded, 28.0°C July 8, Aug. 9, 1978; minimum recorded, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 211 micromhos May 24; minimum recorded, 63 micromhos June 13.
WATER TEMPERATURES: Maximum recorded, 26.0°C June 10; minimum recorded, 12.5°C May 26.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)
OCT 24...	1100	--	43	195	6.8	6.0	1.0	12.5	100	30
NOV 28...	0900	--	38	200	7.8	1.5	2.0	10.9	78	K850
DEC 20...	0800	--	56	--	7.3	.0	2.0	--	--	50
JAN 09...	1045	--	161	136	6.7	.0	1.0	7.4	51	45
FEB 21...	0800	68	--	180	7.0	.0	2.0	12.4	85	410
MAR 22...	1000	--	690	122	6.8	1.0	7.0	7.8	55	--
APR 25...	1030	--	489	92	6.9	8.5	3.0	11.0	94	52
MAY 30...	1030	730	--	87	6.9	12.0	10	9.5	88	2600
JUN 26...	0940	--	63	203	7.8	12.5	1.0	10.1	94	88
JUL 30...	0930	--	28	250	7.5	20.0	1.0	8.2	89	460
AUG 29...	0930	--	103	154	7.6	17.5	2.0	8.7	90	350
SEP 25...	0930	--	44	210	8.1	9.0	1.0	11.3	97	130

K, NON-IDEAL COLONY COUNT.

04296000 BLACK RIVER AT COVENTRY, VT.--Continued

WATER-QUALITY DATA, WATER YEAR, OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT 24...	18	100	20	32	5.5	4.1	.9	83	--	16
NOV 28...	6	100	26	32	5.9	4.0	1.0	78	--	16
DEC 20...	60	96	20	30	5.0	3.7	.9	76	--	15
JAN 09...	370	72	21	23	3.5	3.5	1.0	51	--	13
FEB 21...	4100	93	17	30	4.5	3.1	.9	76	--	13
MAR 22...	--	56	12	18	2.6	3.2	1.2	44	--	8.6
APR 25...	57	45	13	15	1.9	1.6	.5	32	--	7.4
MAY 30...	2300	44	6	14	2.2	2.6	.6	38	9.3	6.0
JUN 26...	K40	110	17	35	4.9	4.0	.8	91	--	11
JUL 30...	52	120	10	38	6.2	4.0	1.0	110	6.8	15
AUG 29...	100	78	14	25	3.7	3.0	1.0	64	3.1	9.8
SEP 25...	20	0	0	--	--	--	--	89	1.4	12

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)
OCT 24...	5.7	.0	6.1	128	121	.20	.00	.02	.02	.00
NOV 28...	6.9	.0	6.9	127	120	.33	.20	.00	.11	.00
DEC 20...	6.3	.0	6.9	128	114	.38	.04	.12	.16	.00
JAN 09...	5.7	.0	6.0	93	87	.48	.16	.14	.30	.00
FEB 21...	5.7	.0	7.0	124	110	.43	.07	.22	.29	.00
MAR 22...	6.1	.0	4.7	84	71	.36	.13	.37	.50	.00
APR 25...	2.3	.0	3.5	61	52	.19	.01	.25	.26	.00
MAY 30...	3.2	.0	4.1	73	56	.11	.02	.47	.49	.06
JUN 26...	5.7	.0	4.1	134	120	.15	.02	.11	.13	.00
JUL 30...	6.0	.1	5.5	152	142	.12	.05	.03	.08	.00
AUG 29...	5.2	.0	5.7	115	92	.21	.03	.45	.48	.11
SEP 25...	6.2	.0	--	122	72	.04	.00	.28	.28	.00

K, NON-IDEAL COLONY COUNT.

04296000 BLACK RIVER AT COVENTRY, VT.--Continued

WATER-QUALITY DATA, WATER YEAR, OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 24...	.19	.22	.01	.00	--	.4	3.5	14	1.6	100
NOV 28...	.13	.44	.00	.01	1.8	--	--	19	1.9	100
DEC 20...	.22	.54	.01	.00	2.7	--	--	15	2.3	100
JAN 09...	.63	.78	.01	.01	--	.5	5.4	5	2.2	100
FEB 21...	.31	.72	.01	.01	3.8	--	--	4	.73	100
MAR 22...	.67	.86	.05	.04	5.8	--	--	31	58	100
APR 25...	.26	.45	.02	.01	--	.3	4.9	14	18	76
MAY 30...	.43	.60	.05	.01	6.6	--	--	12	24	100
JUN 26...	.13	.28	.01	.01	2.3	--	--	1	.17	100
JUL 30...	.10	.20	.02	.00	--	.0	3.0	2	.16	100
AUG 29...	.37	.69	.03	.01	8.4	--	--	16	4.4	100
SEP 25...	1.1	.32	.01	.01	3.0	--	--	3	.36	100

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)
OCT 24...	1	1	0	0	0	2	0	30	<10	<10
JAN 09...	1	1	0	0	0	25	9	16	10	10
APR 25...	1	1	0	0	0	10	5	5	20	10
JUL 30...	3	3	0	0	20	0	0	0	10	0

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
OCT 24...	0	1	1	0	2	2	0	420	230	190
JAN 09...	0	2	0	3	7	1	6	280	210	70
APR 25...	10	2	0	2	2	0	2	490	430	60
JUL 30...	<10	0	0	0	4	3	1	350	280	70

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN

04296000 BLACK RIVER AT COVENTRY, VT.--Continued

WATER-QUALITY DATA, WATER YEAR, OCTOBER 1978 TO SEPTEMBER 1979

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)
OCT									
24...	13	0	--	40	10	30	<.5	.0	<.5
JAN									
09...	130	110	18	30	20	10	<.5	.0	<.5
APR									
25...	150	80	70	30	20	10	.5	.0	.5
JUL									
30...	5	5	0	60	10	50	<.5	.0	<.5

DATE	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT									
24...	0	0	0	0	0	0	20	10	10
JAN									
09...	0	0	0	0	0	0	20	0	30
APR									
25...	0	0	0	0	0	0	110	100	10
JUL									
30...	0	0	0	0	0	0	70	60	7

DATE	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L)
OCT								
24...	<1.2	<.4	2.1	<.4	1.9	<.4	.05	.23

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, APRIL TO JULY 1979

PERIPHYTON

Dates of exposure	Length of exposure (days)	Biomass (g/m^2) Dry weight	Biomass (g/m^2) Ash weight	Chlorophyll a (mg/m^2)	Chlorophyll b (mg/m^2)	Sampling method
April 25 to June 26	63	2.60	2.20	6.44	1.06	Polyethylene strip
June 26 to July 30	35	4.02	3.62	43.8	0.13	Polyethylene strip

04296000 BLACK RIVER AT COVENTRY, VT.--Continued

QUALITATIVE AND QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, DECEMBER 1978 TO SEPTEMBER 1979

PHYTOPLANKTON

DATE	DEC 20,78	APR 25,79	MAY 30,79	JUN 26,79
TIME	0800	1030	1030	0940
TOTAL CELLS/ML	420	160	890	320
DIVERSITY: DIVISION	1.0	0.7	0.6	1.2
.CLASS	1.0	0.7	0.6	1.2
..ORDER	1.1	1.3	0.6	1.4
...FAMILY	3.2	2.2	0.8	2.4
....GENUS	3.3	2.2	0.8	2.4

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...OOCYSTACEAE								
....ANKISTRODESMUS	8	2	--	-	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....CRUCIGENIA	--	-	--	-	--	-	--	-
....SCENEDESMUS	62	15	--	-	--	-	--	-
..TETRASPORALES								
...PALMELLACEAE								
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	8	2	--	-	--	-	13	4
..ZYGNEMATALES								
...DESMIDIACEAE								
....COSMARIUM	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	29#	18	--	-	13	4
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	46	11	--	-	26	3	39	12
....COCCONEIS	15	4	--	-	--	-	--	-
...CYMBELLACEAE								
....CYMBELLA	31	7	--	-	13	1	26	8
...DIATOMACEAE								
....DIATOMA	62	15	--	-	--	-	--	-
...FRAGILARIACEAE								
....SYNEDRA	31	7	--	-	--	-	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	15	4	29#	18	--	-	--	-
...MERIDIONACEAE								
....MERIDION	8	2	58#	36	--	-	--	-
...NAVICULACEAE								
....NAVICULA	85#	20	--	-	39	4	64#	20
...NITZSCHIACEAE								
....NITZSCHIA	15	4	14	9	39	4	39	12
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	--	-	--	-	--	-
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	--	-	--	-	--	-
....ANACYSTIS	31	7	--	-	--	-	--	-
..HORMOGONALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	-	770#	87	130#	40
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	--	-	29#	18	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

04296000 BLACK RIVER AT COVENTRY, VT.--Continued

QUALITATIVE AND QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, DECEMBER 1978 TO SEPTEMBER 1979--Continued

PHYTOPLANKTON

		JUL 30,79	AUG 29,79	SEP 25,79
DATE		JUL 30,79	AUG 29,79	SEP 25,79
TIME		0930	0930	0930
TOTAL CELLS/ML		4800	1200	590
DIVERSITY:	DIVISION	1.0	1.3	1.3
	.CLASS	1.0	1.3	1.3
	..ORDER	1.5	2.2	1.3
	...FAMILY	1.7	2.3	1.5
	....GENUS	2.3	2.5	1.5

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...OOCYSTACEAE						
....ANKISTRODESMUS	230	5	--	-	--	-
....SELENASTRUM	90	2	--	-	--	-
...SCENEDESMACEAE						
....CRUCIGENIA	100	2	--	-	140#	24
....SCENEDESMUS	460	10	150	13	--	-
..TETRASPORALES						
...PALMELLACEAE						
....SPHAEROCYSTIS	100	2	--	-	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	*	0	--	-	--	-
..ZYGNEMATALES						
...DESMIDIACEAE						
....COSMARIUM	--	-	13	1	--	-
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	100	2	190#	16	--	-
..PENNALES						
...ACHNANTHACEAE						
....ACHNANTHES	*	0	--	-	--	-
....COCCONEIS	--	-	--	-	--	-
...CYMBELLACEAE						
....CYMBELLA	--	-	--	-	13	2
...DIATOMACEAE						
....DIATOMA	--	-	--	-	--	-
...FRAGILARIACEAE						
....SYNEDRA	--	-	13	1	26	4
...GOMPHONEMATACEAE						
....GOMPHONEMA	--	-	--	-	--	-
...MERIDIONACEAE						
....MERIDION	--	-	--	-	--	-
...NAVICULACEAE						
....NAVICULA	*	0	52	4	13	2
...NITZSCHIACEAE						
....NITZSCHIA	26	1	26	2	--	-
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE						
....CHROOMONAS	--	-	--	-	13	2
...CRYPTOMONADACEAE						
....CRYPTOMONAS	52	1	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....AGMENELLUM	460	10	190#	16	--	-
....ANACYSTIS	2700#	57	100	9	--	-
..HORMOGONALES						
...OSCILLATORIACEAE						
....OSCILLATORIA	390	8	440#	37	390#	65
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....TRACHELOMONAS	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

04296000 BLACK RIVER AT COVENTRY, VT.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), OCTOBER 1978 TO JUNE 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	203	192	197	---	---	---	---	---	---
2	---	---	---	203	200	202	---	---	---	---	---	---
3	---	---	---	201	192	196	---	---	---	---	---	---
4	---	---	---	195	185	191	---	---	---	---	---	---
5	---	---	---	184	173	177	---	---	---	---	---	---
6	---	---	---	177	155	167	---	---	---	---	---	---
7	---	---	---	176	157	165	---	---	---	---	---	---
8	---	---	---	183	173	179	---	---	---	---	---	---
9	---	---	---	185	179	183	---	---	---	136	134	135
10	---	---	---	193	183	189	---	---	---	141	136	138
11	---	---	---	197	193	196	---	---	---	144	141	142
12	---	---	---	195	191	192	---	---	---	144	---	---
13	---	---	---	196	192	194	---	---	---	---	---	---
14	---	---	---	195	190	192	---	---	---	---	---	---
15	---	---	---	190	184	187	---	---	---	---	---	---
16	---	---	---	183	179	181	---	---	---	---	---	---
17	---	---	---	184	180	182	---	---	---	---	---	---
18	---	---	---	185	182	184	---	---	---	---	---	---
19	---	---	---	185	182	183	---	---	---	---	---	---
20	---	---	---	186	184	185	---	---	---	---	---	---
21	---	---	---	188	186	187	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	200	175	198	---	---	---	---	---	---	---	---	---
25	203	186	198	---	---	---	---	---	---	---	---	---
26	186	151	166	---	---	---	---	---	---	---	---	---
27	165	160	161	---	---	---	172	165	171	---	---	---
28	177	165	172	---	---	---	171	166	170	---	---	---
29	184	177	180	---	---	---	170	165	169	---	---	---
30	192	183	188	---	---	---	171	171	171	---	---	---
31	196	188	193	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			MAY			JUNE	
1	---	---	---	193	192	192	---	---	---	108	87	96
2	---	---	---	193	192	193	---	---	---	131	110	121
3	---	---	---	193	192	192	---	---	---	114	97	105
4	---	---	---	193	192	192	---	---	---	122	102	114
5	---	---	---	196	196	196	---	---	---	140	122	130
6	---	---	---	196	196	196	---	---	---	152	141	144
7	---	---	---	197	196	196	---	---	---	161	149	152
8	---	---	---	197	192	196	---	---	---	168	153	158
9	---	---	---	197	191	195	---	---	---	180	165	170
10	---	---	---	196	191	195	---	---	---	185	169	176
11	---	---	---	199	196	197	---	---	---	187	99	155
12	---	---	---	199	182	194	---	---	---	101	65	77
13	---	---	---	197	164	190	---	---	---	82	63	67
14	---	---	---	191	164	184	---	---	---	71	65	67
15	---	---	---	202	182	194	---	---	---	82	71	75
16	---	---	---	197	182	193	---	---	---	95	81	86
17	---	---	---	198	191	196	---	---	---	96	86	90
18	---	---	---	197	182	186	196	190	192	103	96	100
19	---	---	---	197	164	187	201	194	197	109	98	103
20	---	---	---	191	182	184	203	196	201	116	98	105
21	190	180	189	199	182	188	207	196	202	118	102	108
22	190	188	189	186	172	176	207	198	203	115	104	109
23	189	188	188	183	177	178	209	202	206	118	107	111
24	191	190	191	---	---	---	211	194	204	117	106	109
25	191	188	190	---	---	---	201	114	165	130	102	114
26	189	188	189	---	---	---	120	104	110	---	---	---
27	190	188	189	---	---	---	123	108	115	---	---	---
28	192	190	191	---	---	---	137	124	130	---	---	---
29	---	---	---	---	---	---	135	81	113	---	---	---
30	---	---	---	---	---	---	94	76	87	---	---	---
31	---	---	---	---	---	---	96	79	88	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	187	63	114
PERIOD	211	63	164	---	---	---	---	---	---			

04296000 BLACK RIVER AT COVENTRY, VT.--Continued

TEMPERATURE (DEG. C) OF WATER, MAY TO JUNE 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN
		MAY			JUNE	
1	---	---	---	17.5	14.0	16.0
2	---	---	---	21.5	16.0	18.5
3	---	---	---	20.5	17.5	19.0
4	---	---	---	22.0	17.5	19.5
5	---	---	---	22.0	18.0	20.0
6	---	---	---	22.0	17.0	19.5
7	---	---	---	23.5	16.5	19.5
8	---	---	---	23.5	19.0	21.0
9	---	---	---	24.0	21.0	22.5
10	---	---	---	26.0	21.5	23.5
11	---	---	---	24.0	18.5	21.5
12	---	---	---	18.5	15.5	17.0
13	---	---	---	17.5	14.0	15.5
14	---	---	---	18.0	14.5	16.0
15	---	---	---	21.5	15.5	18.5
16	---	---	---	24.0	17.0	20.5
17	---	---	---	24.5	20.0	22.5
18	23.0	14.0	19.5	22.0	18.5	20.5
19	23.5	16.0	19.0	24.0	16.5	19.5
20	21.0	16.5	19.0	25.0	16.0	20.0
21	22.0	17.0	19.0	25.5	17.0	21.0
22	21.5	16.0	18.0	24.0	17.0	21.0
23	20.0	14.0	17.0	20.5	17.5	19.0
24	17.0	15.0	15.5	18.0	15.5	17.0
25	14.5	13.0	14.0	19.5	13.0	16.0
26	15.0	12.5	13.5	---	---	---
27	16.0	13.0	14.0	---	---	---
28	17.0	14.0	15.5	---	---	---
29	15.5	14.5	15.0	---	---	---
30	15.5	14.5	15.0	---	---	---
31	14.5	14.0	14.5	---	---	---
MONTH	---	---	---	26.0	13.0	19.5
PERIOD	26.0	12.5	18.5			

04296500 CLYDE RIVER AT NEWPORT, VT

LOCATION.--Lat 44°56'22", long 72°11'23", Orleans County, Hydrologic Unit 01110000, on right bank in Newport, just downstream from small right-bank tributary, and 1 mi (1.6 km) upstream from mouth.

DRAINAGE AREA.--142 mi² (368 km²).

PERIOD OF RECORD.--Discharge: May 1909 to September 1919; May 1920 to August 1922, October 1922 to September 1924, November 1928 to May 1936, September 1938 to current year. Prior to November 1928, published as "at West Derby."
SPECIFIC CONDUCTANCE: October 1974 to October 1977 (discontinued).
WATER TEMPERATURES: October 1974 to October 1977 (discontinued).

REVISED RECORDS.--WSP 744: 1913(M), drainage area. WSP 924: 1940. WSP 1307: 1913-15(M).

GAGE.--Water-stage recorder and since Mar. 6, 1957, records of power generation. Datum of gage is 682.36 ft (207.983 m) National Geodetic Vertical Datum of 1929. May 25, 1909, to Sept. 20, 1915, nonrecording gage, and Sept. 21, 1915, to Sept. 30, 1924, Nov. 16, 1928, to May 4, 1936, water-stage recorder, at site 0.65 mi (1.05 km) upstream at different datum.

REMARKS.--Records fair except those for period of no gage-height record, Mar. 1 to Apr. 3, which are poor. Flow regulated by powerplant and reservoirs upstream and, since Mar. 6, 1957, by diversion around station through canal and penstock of Newport No. 11 powerplant. Diversion computed from relation of kilowatt-hour output and measured discharge, discharge computed by adding flow over control to flow diverted through powerplant.

AVERAGE DISCHARGE.--60 years (water years 1910-19, 1921, 1923-24, 1929-35, 1939-79), 259 ft³/s (7.335 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,900 ft³/s (110 m³/s) Mar. 20, 1936, gage height, 5.76 ft (1.756 m), site and datum then in use, from rating curve extended above 2,800 ft³/s (79 m³/s) on basis of computation of peak flow over dam; maximum daily, 2,680 ft³/s (75.9 m³/s) May 4, 1940; minimum daily, 2.6 ft³/s (0.074 m³/s) June 18, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge 1,100 ft³/s (31 m³/s) Mar. 26; minimum daily, 36 ft³/s (1.02 m³/s) Aug. 2, 5, 6, 9, 13, 26, Sept. 23.

DISCHARGE, STREAM (CUBIC FEET PER SECOND), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	229	69	41	22	22	453	204	555	74	59	82
2	55	214	181	100	21	22	553	165	534	116	36	46
3	51	220	206	182	21	23	528	129	568	65	44	94
4	78	107	115	403	20	26	515	111	540	45	105	160
5	51	156	95	416	20	24	484	93	496	83	36	153
6	48	210	73	70	20	337	386	96	475	94	36	55
7	38	192	117	51	19	177	309	57	467	149	37	180
8	133	117	103	42	19	475	232	38	364	95	37	90
9	167	140	67	41	19	493	191	26	246	136	36	61
10	96	111	94	38	18	485	158	23	312	118	37	210
11	112	39	205	36	18	447	120	29	309	158	84	67
12	76	150	169	35	18	434	95	29	436	88	51	125
13	102	156	145	34	17	419	77	29	430	62	36	196
14	47	156	201	33	17	481	65	26	439	92	51	158
15	154	152	171	32	17	493	64	21	472	52	118	68
16	161	84	41	31	18	491	64	337	405	86	99	37
17	182	134	49	30	18	492	70	290	359	52	130	158
18	186	39	233	29	18	492	62	277	18	52	159	189
19	180	46	232	28	18	490	70	257	18	37	85	268
20	204	188	31	28	19	490	58	235	23	37	44	272
21	83	102	166	27	19	490	57	280	269	82	59	184
22	220	147	137	27	19	496	56	293	304	70	46	44
23	216	200	56	26	19	509	56	255	195	92	59	36
24	198	205	52	26	20	269	56	306	232	102	63	215
25	162	154	69	25	20	475	65	303	249	107	117	225
26	146	39	156	25	20	680	80	177	232	82	36	68
27	130	140	31	24	21	547	102	297	243	37	54	65
28	65	89	28	24	21	460	146	415	221	70	156	67
29	94	86	27	23	---	412	196	419	222	52	38	101
30	195	83	25	23	---	372	224	461	92	75	122	59
31	165	---	21	22	---	353	---	538	---	100	92	---
TOTAL	3849	4085	3365	1972	536	11876	5592	6216	9725	2560	2162	3813
MEAN	124	136	109	63.6	19.1	383	186	201	324	82.6	69.7	127
MAX	220	229	233	416	22	680	553	538	568	158	159	272
MIN	38	39	21	22	17	22	56	21	18	37	36	36

CAL YR 1978 TOTAL 111874 MEAN 307 MAX 1400 MIN 21
WTR YR 1979 TOTAL 55751 MEAN 153 MAX 680 MIN 17

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, and discharge measurements may have been made for purposes of establishing the stage-discharge relation, but these are not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations during water year 1979

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft^3/s)
		Androscoggin River basin					
01054120	Josh Brook near Gorham, NH	Lat 44°23'15", long 71°07'58", Coos County, at culvert on U.S. Highway 2, 2 mi east of Gorham.	0.67	1973-79	No data available		
		Saco River basin					
01064250	Albany Brook tributary near Bartlett, NH	Lat 44°04'23", long 71°18'10", Carroll County, at culvert on U.S. Highway 302, 1 mi west of Bartlett.	0.20	1973-79	4-27-79	6.07	80
01064310	Ellis River tributary near Jackson, NH	Lat 44°09'42", long 71°12'57", Carroll County, at culvert on State Highway 16, 2 mi northwest of Jackson.	.78	1974-79	No data available		
01064750	Meadow Brook near Sandwich, NH	Lat 43°47'53", long 71°22'30", Carroll County, at culvert on Little Pond Rd., 0.3 mi west of State Highway 25 and 1.9 mi east of Sandwich.	.67	1973-79	3-25-79	6.23	36
01064850	Square Brook near Freedom, NH	Lat 43°49'55", long 71°04'35", Carroll County, at culvert on State Highway 153, 2.4 mi northwest of Freedom and 2.7 mi north of Effingham Falls.	1.20	1973-79	5-25-79	7.11	22
		Piscataqua River basin					
01073750	Mill Brook at Stratham, NH	Lat 43°01'24", long 70°55'04", Rockingham County, at culvert on southbound lane of State Highways 101 and 108, 0.3 mi west of Stratham.	2.30	1973-79	3- 9-79	10.17	150
		Hampton River basin					
01073850	Hampton Falls River near Hampton Falls, NH	Lat 42°54'35", long 70°52'58", Rockingham County, at culvert on N.H. Highway 150, 0.3 mi west of Interstate Highway 95 and 1.1 mi southwest of Hampton Falls.	4.73	1973-79	3- 9-79	10.19	255
		Merrimack River basin					
01074250	Hancock Branch tributary near Lincoln, NH	Lat 44°03'45", long 71°35'15", Grafton County, at culvert on State Highway 112, 4.5 mi east of Lincoln and 700 ft east of highway bridge over East Branch Pemigewasset River.	0.58	1975-79	3- 6-79	10.10	634
‡01075000	Pemigewasset River at Woodstock, NH	Lat 43°58'34", long 71°40'48", Grafton County, 0.2 mi east of Woodstock and 0.7 mi upstream from Eastman Brook.	193	1940-77[, 1978-79	4-28-79	8.95	9,650

‡ Also a miscellaneous measurement site.
[Operated as a continuous-record gaging station.
b Estimated.

Annual maximum discharge at crest-stage partial-record stations during water year 1979--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Merrimack River basin--Continued					
01079550	West Alton Brook near Alton, NH	Lat 43°32'10", long 71°19'22", Belknap County, at culvert on State Highway 11A, 1.2 mi west of junction with State Highway 11, and 1.3 mi south of West Alton.	2.39	1973-79	4-27-79	4.76	68
01081900	Town Line Brook tributary near Peterborough, NH	Lat 42°51'09", long 71°54'14", Hillsborough County, at culvert on State Highway 101, 2.8 mi east of Peterborough, and 5 mi west of West Wilton.	.75	1972-79	No data available		
01082490	Mud Pond tributary near Dublin, NH	Lat 42°54'08", long 72°01'52", Cheshire County, at culvert on secondary dead-end road, 0.1 mi south of State Highway 101, and 0.3 mi west of Bonds Corner.	1.39	1972-79	5-25-79	16.52	54
01089750	Marden Brook near Epsom, NH	Lat 43°12'13", long 71°23'16", Merrimack County, at culvert on State Highway 28, 2 mi south of Epsom.	1.16	1973-79	No data available		
01090480	Rays Brook at Manchester, NH	Lat 43°01'08", long 71°27'02", Hillsborough County, at culvert on Cambell Street, Manchester, and 0.1 mi upstream from Dorrs Pond.	1.74	1973-79	No data available		
01094006	McQuade Brook near Bedford, NH	Lat 42°55'45", long 71°33'20", Hillsborough County, at culvert on North Amherst Rd. at junction with Hardy Rd., 2.3 mi southwest of Bedford.	4.13	1972-79	3- 8-79	b15.30	65
		Connecticut River basin					
01129210	Ad Chase Brook near Pittsburg, NH	Lat 45°02'20", long 71°27'10", Coos County, at culvert on U.S. Highway 3, 100 ft above mouth, 1 mi below Indian Stream, and 3 mi southwest of Pittsburg.	1.62	1973-79	3-26-79	(a)	b57
01129950	Upper Ammonoosuc River tributary near Stark, NH	Lat 44°35'48", long 71°25'30", Coos County, at culvert on State Highway 110, 1.1 mi west of Stark.	.58	1973-79	3-26-79	(a)	b12
01131250	Cherry Mountain Brook tributary near Twin Mountain, NH	Lat 44°18'40", long 71°31'40", Coos County, at culvert on State Highway 115, 1.1 mi north of junction with U.S. Highway 3, and 2.8 mi north of Twin Mountain.	1.31	1973-79	4-27-79	(a)	b280

a Not determined.
b Estimated.

Measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table.

Discharge measurements made at miscellaneous sites during water year 1979

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
Piscataqua River basin						
01072870 Isinglass River	Piscataqua River	Lat 43°14'02", long 70°57'21", revised, Strafford County, at bridge on Rochester Neck Road, 4.3 mi northwest of Dover, NH.	-	-	8-22-78 3-30-79	6.60 399
01072880 Cocheco River	do	Lat 43°12'10", long 70°53'38", Strafford County, at bridge on Whittier Street in Dover, NH.	-	-	8-22-78 11-21-78 3-29-79 4-10-79	18.8 45.0 1,010 712
01073200 Lamprey River	do	Lat 43°06'24", long 71°14'34", Rockingham County, at culvert on State Highway 107A, 1.8 mi south of Deerfield Center, NH.	-	1976-78	9-27-79	2.07
01073210 Lamprey River tributary	Lamprey River	Lat 43°06'11", long 71°14'49", Rockingham County, on culvert on State Highway 107A, near Deerfield Fairgrounds, 2 mi south of Deerfield Center, NH.	-	1976-78	9-27-79	.64
01073220 Lamprey River tributary	do	Lat 43°06'15", long 71°14'14", Rockingham County, at culvert on State Highway 107, 2.0 mi south of Deerfield Center, NH.	-	1976,1978	9-27-79	.26
01073300 Lamprey River	Piscataqua River	Lat 43°03'46", long 71°13'42", Rockingham County, at culvert on State Highway 101, 3.0 mi northeast of Raymond, NH.	-	1976-78	9-27-79	3.95
01073340 Lamprey River tributary	Lamprey River	Lat 43°01'58", long 71°09'00", Rockingham County, near railroad crossing, 1.5 mi east of Raymond, NH.	-	1978	9-27-79	.32
01073350 Mountain Brook	do	Lat 43°06'01", long 71°11'30", Rockingham County, at culvert on Pawtuckaway Mountain, 4.5 mi north of Raymond, NH.	-	1976,1978	9-27-79	.10
01073430 Lamprey River	Piscataqua River	Lat 43°02'58", long 71°02'02", Rockingham County, near Camp Hedding, on town road, 2.2 mi northeast of Epping, NH.	-	1976-78	9-27-79	22.8
01073431 Lamprey River tributary	Lamprey River	Lat 43°03'09", long 71°02'01", Rockingham County, at culvert on abandoned road near Camp Hedding, 2.5 mi northeast of Epping, NH.	-	1976-78	9-28-79	.40
01073470 Lamprey River	Piscataqua River	Lat 43°05'31", long 71°00'29", Strafford County, at bridge on State Highway 152, near Wadley Falls, 4 mi east of Newmarket, NH.	-	1976-78	9-28-79	35.5
01073538 Piscassic River	Lamprey River	Lat 43°00'55", long 71°06'44", Rockingham County, on gravel road, 0.3 mi south of Shirking Rd., 2.4 mi southwest of Epping, NH.	-	1977-78	9-26-79	.01
01073539 Piscassic River	do	Lat 43°01'09", long 71°06'37", Rockingham County, Center Crossing of Shirking Road Intersection, 2.4 mi southwest of Epping, NH.	-	1977-78	9-26-79	.12
01073540 Piscassic River	do	Lat 43°01'04", long 71°06'26", Rockingham County, southeast corner of Intersection at Shirking Rd., 2.3 mi southwest of Epping, NH.	-	1977-78	9-26-79	0

Discharge measurements made at miscellaneous sites during water year 1979--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Piscataqua River basin--Continued				
01073541 Piscassic River	Lamprey River	Lat 43°01'02", long 71°05'10", Rockingham County, at culvert 0.2 mi south of Martin Crossing, and 1.5 mi southwest of Epping, NH.	-	1976-78	9-26-79	0.30
Piscassic River	do	Lat 43°01'18", long 71°04'29", Rockingham County, on State Highway 125, 1.5 mi south of Epping, NH.	-	1978	9-28-79	0
Piscassic River	do	Lat 43°01'40", long 71°02'41", Rockingham County, on State Highway 101, 1.5 mi southeast of Epping, NH.	-	-	9-28-79	.25
01073542 Piscassic River	do	Lat 43°01'31", long 71°03'35", revised, Rockingham County, at culvert on State Highway 101, 1 mi south of Epping, NH.	-	1976	9-28-79	0
		Merrimack River basin				
*01075000 Pemigewasset River	Merrimack River	Lat 43°58'34", long 71°40'48", Grafton County, 0.2 mi east of Woodstock, NH, and 0.7 mi upstream from Eastman Brook.	193	1940-77‡ 1978	4- 6-79 5-25-79 6-27-79	826 2,670 113
01075250 Mad River	do	Lat 43°52'48", long 71°36'02", Grafton County, 1,000 ft below Goose Hollow Bridge on the Waterville Valley Road, 2,000 ft southwest of Goose Hollow.	-	-	11- 3-78	17.2
01076000 Baker River	Pemigewasset River	Lat 43°47'46", long 71°50'42", Grafton County, 0.3 mi upstream from Halls Brook, and 1.8 mi southwest of Rumney, NH.	143	1929-77‡ 1978	4-17-79 5-29-79 6-27-79	436 1,320 33.7
01081500 Merrimack River	Merrimack River	Lat 43°25'26", long 71°39'12", Merrimack County, at Franklin Junction, NH, 1 mi downstream from confluence of Pemigewasset and Winnipesaukee Rivers.	-	1906-1978‡	4-23-79 8- 8-79	4,740 671
01082000 Contoocook River	do	Lat 42°51'45", long 71°57'35", Hillsborough County, 1,100 ft downstream from milldam, 1 mi south of Peterborough, NH, and 1.5 mi upstream from Nubanusit Brook.	68.1	1945-77‡ 1978	1-12-78 6- 7-78	317 61.3
01085000 Contoocook River	do	Lat 43°09'10", long 71°51'24", Merrimack County, 1.6 mi downstream from Sand Brook, and 2.5 mi southwest of Henniker, NH.	368	1940-77‡ 1978	6-20-79	140
01088000 Contoocook River	do	Lat 43°17'12", long 71°35'56", Merrimack County, at Penacook, NH, 0.5 mi upstream from mouth.	766	1929-77‡ 1978	11- 6-78 4-24-79 8- 8-79	204 2,890 249
01088400 Merrimack River	do	Lat 43°12'32", long 71°31'51", Merrimack County, at bridge on State Highway 4 at Concord, NH.	-	-	4- 9-79 5- 7-79 6-15-79 7-25-79 8-15-79 9-26-79	9,760 8,280 1,900 965 2,220 2,270
01091500 Piscataquog River	do	Lat 43°00'58", long 71°33'03", Hillsborough County, 0.2 mi upstream from Harry Brook, 0.9 mi downstream from Glen Lake, and 2.5 mi east of Goffstown, NH.	202	1939-1978‡	3-26-79 7-24-79	1,920 75.5
01094000 Souhegan River	do	Lat 42°51'27", long 71°30'24", Hillsborough County, at head of Wildcat Falls at Merrimack, NH., 1.5 mi upstream from mouth.	171	1909-1976‡	1-10-79 4- 4-79 7-24-79	667 879 108

* Also a crest-stage partial-record station.
‡ Operated as a continuous-record gaging station.

Discharge measurements made at miscellaneous sites during water year 1979--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Connecticut River basin				
01140850 West Branch Ompompanoosuc River	Merrimack River	Lat 43°49'19", long 72°17'03", Orange County, at bridge on Route 132, 4.8 mi southeast of South Strafford, VT.	-	-	9-27-78	8.05
					7-19-79	27.7
					8-16-79	13.3
					9- 6-79	10.6
01140950 Ompompanoosuc River	do	Lat 43°49'56", long 72°15'13", Orange County, at covered bridge at Thetford Center, VT.	-	-	9-27-78	8.3
					7- 9-79	26.0
					8-16-79	11.7
					9- 6-79	10.6
01145000 Mascoma River	do	Lat 43°39'00", long 72°04'50", Grafton County, on right bank 45 ft downstream from Boston and Maine Railroad bridge, 0.9 mi east of West Canaan, 1.2 mi downstream from Indian River, 3.5 mi west of Canaan and at mile 19.3.	80.5	1939-78‡	4-20-79	278
					5-21-79	55.4
					6-26-79	12.5
01152010 Sugar River	Connecticut River	Lat 43°25'10", long 72°23'16", Sullivan County, 1 mi below dam at outlet of Sunapee Lake at Sunapee, NH.	45.5	1976	5-23-79	37.1
01155000 Cold River	do	Lat 43°07'54", long 72°23'23", Cheshire County, 50 ft upstream from bridge on State Highway 123 at Drewsville, and 3.4 mi upstream from mouth.	82.7	1940-78‡	9-14-79	13.5
01160000 South Branch Ashuelot River	do	Lat 42°52'20", long 72°12'51", Cheshire County, 15 ft downstream from bridge, at Webb, 2.5 mi south of Marlborough, and at mile 10.9.	36	1920-78‡	6-20-79	11.6

‡ Operated as a continuous-record gaging station.

MISCELLANEOUS TEMPERATURE AND SPECIFIC CONDUCTANCE MEASUREMENTS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)
SACO RIVER BASIN									
01064300 - ELLIS RIVER NEAR JACKSON, NH (LAT 44 13 12 LONG 071 15 00)									
OCT , 1978 19...	1140	9.9	5.0	50	JUN , 1979 20...	1245	16	11.0	34
NOV 30...	1155	6.6	.0	78	AUG 07...	1205	8.2	12.5	36
JAN , 1979 12...	1045	9.6	.0	84	SEP 20...	1045	19	4.0	29
FEB 27...	1210	6.4	1.0	98					
01064400 - LUCY BROOK NEAR NORTH CONWAY, NH (LAT 44 04 10 LONG 071 10 30)									
OCT , 1978 19...	1425	1.5	7.0	--	JUN , 1979 20...	1520	3.7	13.0	20
NOV 30...	1340	2.0	.0	--	AUG 07...	1515	2.0	13.0	23
JAN , 1979 12...	1430	4.5	.0	18	SEP 20...	1420	4.7	7.0	21
MAR 08...	1400	47	1.0	24					
27...	1215	50	.0	15					
01064500 - SACO RIVER NEAR CONWAY, NH (LAT 43 59 27 LONG 071 05 29)									
OCT , 1978 03...	1430	147	12.0	60	JUL , 1979 26...	1815	245	21.5	50
MAY , 1979 16...	1215	1120	13.0	34	SEP 20...	1330	401	13.0	39
01065000 - OSSIPEE RIVER AT EFFINGHAM FALLS, NH (LAT 43 47 44 LONG 071 03 36)									
JUL , 1979 27...	1450	198	26.0	36					
PISCATAQUA RIVER BASIN									
01073000 - OYSTER RIVER NEAR DURHAM, NH (LAT 43 08 55 LONG 070 57 56)									
NOV , 1978 17...	1100	.90	4.5	--	SEP , 1979 24...	1240	3.4	11.0	51
SEP , 1979 12...	1000	1.4	15.5	175					
01073200 - LAMPREY RIVER NEAR DEERFIELD CENTER, NH (LAT 43 06 24 LONG 071 14 34)									
SEP , 1979 27...	1100	2.1	12.5	75					
01073210 - LAMPREY RIVER TR AT RT 107A DEERFIELD CENTER, NH (LAT 43 06 11 LONG 071 14 49)									
SEP , 1979 27...	1000	.60	11.0	63					
01073220 - LAMPREY RIVER TR AT RT 107, DEERFIELD CENTER, MA (LAT 43 06 15 LONG 071 14 14)									
SEP , 1979 27...	1200	.30	14.0	54					
01073300 - LAMPREY RIVER NEAR RAYMOND, NH (LAT 43 03 46 LONG 071 13 42)									
SEP , 1979 27...	1400	4.0	14.5	82					
01073340 - LAMPREY RIVER TR NEAR RAYMOND, NH (LAT 43 01 58 LONG 071 09 00)									
SEP , 1979 27...	1500	.30	14.0	315					

MISCELLANEOUS TEMPERATURE AND SPECIFIC CONDUCTANCE MEASUREMENTS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)
PISCATAQUA RIVER BASIN--CONTINUED									
01073350 - MOUNTAIN BROOK NEAR RAYMOND, NH (LAT 43 06 01 LONG 071 11 30)									
SEP , 1979									
27...	1300	.10	14.0	63					
01073430 - LAMPREY RIVER NEAR EPPING, NH (LAT 43 02 58 LONG 071 02 02)									
SEP , 1979									
27...	1600	23	13.5	132					
01073431 - LAMPREY RIVER TR NR EPPING, NH (LAT 43 03 09 LONG 071 02 01)									
SEP , 1979									
28...	0700	.40	12.0	168					
01073470 - LAMPREY RIVER RT 152 NR NEWMARKET, NH (LAT 43 05 31 LONG 071 00 29)									
SEP , 1979									
28...	0845	36	13.5	134					
01073500 - LAMPREY RIVER NEAR NEWMARKET, NH (LAT 43 06 09 LONG 070 57 11)									
OCT , 1978					JUN , 1979				
20...	1020	77	8.0	82	26...	1100	56	19.0	86
MAR , 1979					AUG				
22...	1030	854	--	54	28...	1040	34	18.5	113
APR									
23...	1105	318	9.5	90					
430118071042900 - PISCASSIC RIVER RT 125, NEAR EPPING, NH (LAT 43 01 18 LONG 071 04 29)									
SEP , 1979									
28...	1200	.00	14.5	178					
430140071024100 - PISCASSIC RIVER RT 101, NEAR EPPING, NH (LAT 43 01 40 LONG 071 02 41)									
SEP , 1979									
28...	1330	.30	14.5	153					
MERRIMACK RIVER BASIN									
01075800 - STEVENS BROOK NEAR WENTWORTH, NH (LAT 43 50 12 LONG 071 53 07)									
NOV , 1978					MAR , 1979				
03...	1130	.28	6.0	58	07...	0950	49	1.0	18
DEC					APR				
08...	1005	1.9	2.0	45	17...	1000	6.4	3.0	27
JAN , 1979									
24...	1010	1.9	1.0	38					
01076000 - BAKER RIVER NEAR RUMNEY, NH (LAT 43 47 46 LONG 071 50 42)									
APR , 1979									
17...	1115	436	4.0	20					
01076500 - PEMIGEWASSET RIVER AT PLYMOUTH, NH (LAT 43 45 33 LONG 071 41 10)									
OCT , 1978					APR , 1979				
17...	0910	205	5.0	55	04...	0900	960	6.0	50
19...	1030	266	4.0	54	19...	1025	2140	5.0	38
NOV					MAY				
21...	1020	434	2.0	50	17...	1130	1170	12.0	48
DEC					JUN				
18...	1130	252	2.0	30	25...	0945	292	18.0	50
FEB , 1979					JUL				
20...	1355	287	1.0	60	26...	1330	180	21.0	--
MAR					AUG				
22...	1130	2780	3.0	38	27...	0840	237	18.0	68

MERRIMACK RIVER BASIN--CONTINUED

01077000 - SQUAM RIVER AT ASHLAND, NH (LAT 43 42 19 LONG 071 37 49)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)
DEC , 1978					JUL , 1979				
12...	1120	59	2.0	140	12...	0945	55	24.5	45
MAR , 1979									
09...	1010	59	1.0	32					

01078000 - SMITH RIVER NEAR BRISTOL, NH (LAT 43 34 04 LONG 071 44 54)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)
OCT , 1978					MAR , 1979				
17...	1045	43	4.5	58	07...	1240	1040	2.0	45
DEC					APR				
08...	1315	36	1.5	32	04...	1100	600	6.0	32
JAN , 1979					24...	1045	453	8.0	32
24...	1340	47	2.0	22					

01079600 - POORFARM BROOK NEAR GILFORD, NH (LAT 43 33 19 LONG 071 21 52)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)
OCT , 1978					JUN , 1979				
11...	1100	.42	7.0	--	19...	1135	3.0	15.0	58
NOV					JUL				
28...	1150	.88	.0	40	28...	1000	.57	19.0	36
FEB , 1979					AUG				
22...	1115	2.0	.0	84	09...	1200	.80	13.5	116
MAR					SEP				
09...	1235	48	1.0	33	18...	1145	.63	11.5	72
APR									
18...	1125	19	3.0	42					

01080500 - LAKE WINNIPESAUKEE OUTLET AT LAKEPORT, NH (LAT 43 32 57 LONG 071 27 54)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)
JAN , 1979					JUL , 1979				
11...	1000	508	3.0	--	25...	1000	253	21.5	50
APR					SEP				
02...	1450	1080	5.0	--	18...	1040	25	16.0	49

01083000 - NUBANUSIT BROOK NEAR PETERBOROUGH, NH (LAT 42 53 10 LONG 071 58 24)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1979									
12...	1205	28	17.5	43					

01085500 - CONTOOCOOK R BL HOPKINTON DAM AT W HOPKINTON, NH (LAT 43 11 31 LONG 071 44 51)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)
OCT , 1978					MAY , 1979				
10...	1330	197	7.0	47	08...	1125	832	14.0	45
NOV					JUN				
27...	1330	31	2.0	31	18...	1125	148	21.0	62
FEB , 1979					JUL				
21...	1040	264	1.0	75	23...	1400	195	20.0	--
MAR					SEP				
16...	1135	4450	2.0	63	17...	1305	188	15.0	58
APR									
04...	0950	3160	4.0	40					

01085800 - WEST BRANCH WARNER RIVER NEAR BRADFORD, NH (LAT 43 15 33 LONG 072 01 35)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)
NOV , 1978					MAY , 1979				
01...	0830	1.2	8.0	36	31...	0910	30	10.0	34
DEC					JUL				
06...	0940	3.8	2.0	56	12...	0840	.81	18.0	36
JAN , 1979					AUG				
23...	1020	1.7	2.0	40	09...	0820	.33	15.0	40
APR					SEP				
03...	0910	44	2.0	45	19...	0840	.77	14.0	34
16...	0840	25	18.0	22					

01087000 - BLACKWATER RIVER NEAR WEBSTER, NH (LAT 43 17 45 LONG 071 41 46)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)
APR , 1979					JUL , 1979				
02...	1030	762	3.0	40	23...	1200	59	20.0	54
JUN					SEP				
18...	0955	93	19.0	47	17...	1040	45	12.0	52

MISCELLANEOUS TEMPERATURE AND SPECIFIC CONDUCTANCE MEASUREMENTS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)
MERRIMACK RIVER BASIN--CONTINUED									
01090800 - PISCATAQUOG RIVER BL EVERETT DAM, NR E WEARE, NH (LAT 43 05 29 LONG 071 39 36)									
NOV , 1978					JUN , 1979				
01...	1300	71	9.0	45	01...	0740	785	10.0	45
MAR , 1979					AUG				
06...	1330	100	1.0	35	09...	1340	13	23.0	52
APR					SEP				
16...	1430	252	4.0	38	19...	1415	14	18.0	46
01092000 - MERRIMACK R NR GOFFS FALLS, BELOW MANCHESTER, NH (LAT 42 56 54 LONG 071 27 52)									
APR , 1979					APR , 1979				
03...	1230	19800	4.0	46	19...	1130	10200	8.0	55
01093800 - STONY BROOK TRIBUTARY NEAR TEMPLE, NH (LAT 42 51 36 LONG 071 50 00)									
NOV , 1978					MAY , 1979				
01...	1120	.39	8.0	35	31...	1030	21	10.0	22
DEC					JUL				
06...	1135	1.3	2.0	45	12...	1045	.37	20.0	28
JAN , 1979					AUG				
23...	1305	7.6	2.0	38	09...	1100	.22	17.0	30
APR					SEP				
03...	1200	20	4.0	20	19...	1225	.93	14.0	25
16...	1140	14	2.0	20					
01094000 - SOUHEGAN RIVER AT MERRIMACK, NH (LAT 42 51 27 LONG 071 30 24)									
JAN , 1979					JUL , 1979				
10...	1505	667	.0	64	24...	1250	108	20.0	--
APR									
04...	1340	879	5.5	50					
CONNECTICUT RIVER BASIN									
01127880 - BIG BROOK NEAR PITTSBURG, NH (LAT 45 08 06 LONG 071 12 23)									
OCT , 1978					MAY , 1979				
05...	1650	8.3	9.5	--	15...	1330	10	15.5	39
DEC					JUN				
05...	1115	5.6	.0	--	27...	1615	3.7	12.0	41
JAN , 1979					AUG				
17...	1130	5.4	.0	--	16...	1800	3.7	10.0	45
MAR					SEP				
12...	1540	17	.0	36	25...	1515	3.5	11.0	44
APR									
16...	1605	24	3.0	40					
01128500 - CONNECTICUT R AT FIRST CONN LK NR PITTSBURG, NH (LAT 45 05 14 LONG 071 17 34)									
APR , 1979					AUG , 1979				
17...	0945	11	2.5	37	17...	0900	94	12.0	30
JUN					SEP				
27...	1735	279	12.0	33	26...	0930	311	14.0	61
01129200 - CONNECTICUT R BL INDIAN STREAM NR PITTSBURG, NH (LAT 45 02 25 LONG 071 26 37)									
DEC , 1978					AUG , 1979				
05...	1405	359	.0	29	17...	1100	276	12.0	39
MAR , 1979									
07...	1215	1730	1.0	30					
01129300 - HALLS STREAM NEAR EAST HEREFORD, QUEBEC (LAT 45 02 41 LONG 071 29 54)									
DEC , 1978					AUG , 1979				
04...	1520	34	.0	--	16...	1430	31	13.5	80
APR , 1979									
16...	1355	427	4.0	--					

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)
CONNECTICUT RIVER BASIN--CONTINUED									
01130000 - UPPER AMMONOOSUC RIVER NEAR GROVETON, NH (LAT 44 37 30 LONG 071 28 10)									
OCT , 1978					APR , 1979				
12...	1200	97	7.0	51	17...	1550	809	3.0	33
DEC					JUN				
04...	1220	111	.0	47	27...	1055	124	11.5	43
FEB , 1979					AUG				
06...	1145	139	.0	45	22...	1400	77	20.0	46
MAR					SEP				
19...	1630	515	.0	36	25...	1055	86	11.0	42
01131500 - CONNECTICUT RIVER NEAR DALTON, NH (LAT 44 24 36 LONG 071 43 16)									
NOV , 1978					AUG , 1979				
02...	1145	1860	13.0	48	23...	0940	525	19.0	80
01137500 - AMMONOOSUC RIVER AT BETHLEHEM JUNCTION, NH (LAT 44 16 08 LONG 071 37 52)									
DEC , 1978					JUN , 1979				
07...	1230	58	1.5	46	28...	1335	54	19.0	45
MAR , 1979					AUG				
08...	1230	749	1.0	32	23...	1350	39	19.0	43
APR					SEP				
18...	1145	191	2.0	28	26...	1630	60	13.0	38
01139800 - EAST ORANGE BRANCH AT EAST ORANGE, VT (LAT 44 05 34 LONG 072 20 10)									
OCT , 1978					APR , 1979				
31...	0930	3.2	1.5	200	10...	1400	33	4.0	160
DEC					MAY				
15...	1120	3.6	.0	140	17...	1620	16	6.5	180
JAN , 1979					JUN				
23...	0930	13	.0	190	29...	1445	5.3	--	140
MAR					AUG				
07...	1550	41	1.0	150	31...	1030	2.0	19.0	160
01141500 - OMPOMPANOOSUC RIVER AT UNION VILLAGE, VT (LAT 43 47 23 LONG 072 15 19)									
NOV , 1978					APR , 1979				
03...	1130	34	6.0	110	05...	1600	605	4.0	110
DEC					MAY				
19...	1430	26	.0	90	23...	1145	112	--	115
JAN , 1979					JUL				
22...	1445	136	.0	90	19...	1345	66	25.0	120
MAR					SEP				
09...	1105	76	1.0	100	06...	0820	25	20.0	115
01141800 - MINK BROOK NEAR ETNA, NH (LAT 43 42 08 LONG 072 11 15)									
OCT , 1978					MAY , 1979				
30...	1300	.80	3.5	--	18...	1300	3.2	6.5	--
DEC					JUL				
11...	1030	2.0	.0	90	16...	1130	.30	23.0	--
JAN , 1979					AUG				
22...	1100	6.8	.0	--	07...	1400	.10	22.0	--
MAR					16...	1200	.63	22.0	90
09...	1230	27	1.0	110					
APR									
12...	0900	16	2.0	--					
01142500 - AYERS BROOK AT RANDOLPH, VT (LAT 43 56 04 LONG 072 39 30)									
NOV , 1978					MAY , 1979				
03...	0930	15	4.0	120	18...	1055	40	6.5	110
DEC					JUL				
14...	1515	22	.0	125	17...	0730	22	23.0	120
JAN , 1979					AUG				
25...	1715	34	.0	130	23...	1415	8.5	19.0	130
APR									
03...	1155	195	--	140					

CONNECTICUT RIVER BASIN--CONTINUED

01144000 - WHITE RIVER AT WEST HARTFORD, VT (LAT 43 42 51 LONG 072 25 07)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)
OCT , 1978					MAY , 1979				
27...	1000	591	8.5	120	25...	1100	1390	18.0	--
NOV					JUN				
27...	1400	353	.0	110	25...	1530	387	20.0	--
DEC					JUL				
27...	1030	408	.0	100	17...	0900	254	23.0	120
JAN , 1979					AUG				
26...	0900	898	.0	100	28...	1230	538	19.0	125
FEB					SEP				
26...	1100	910	.0	--	25...	0900	287	13.0	110

01144500 - CONNECTICUT RIVER AT WEST LEBANON, NH (LAT 43 38 47 LONG 072 18 46)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)
DEC , 1978					MAY , 1979				
20...	1500	706	.0	--	23...	1100	10700	--	95
27...	1445	623	.0	85	JUL				
JAN , 1979					17...	1145	4760	22.0	90
26...	1145	--	.0	110	19...	0910	380	23.0	80
MAR					SEP				
09...	0930	36100	1.0	130	05...	1605	10400	21.0	95
APR									
06...	1500	16100	4.0	120					

01151500 - OTTAUQUECHEE RIVER AT NORTH HARTLAND, VT (LAT 43 36 09 LONG 072 21 17)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)
OCT , 1978					MAR , 1979				
30...	1500	230	6.0	--	09...	1500	5.7	1.5	--
NOV					APR				
03...	1200	113	6.0	--	05...	1600	1370	4.0	--
DEC					JUL				
11...	1400	240	.0	--	17...	1100	64	23.0	--
19...	1500	82	.0	--	19...	1000	77	23.0	--
JAN , 1979					SEP				
22...	1600	237	.0	--	05...	1500	31	21.0	--

01152800 - BLACK R AT COVERED BRIDGE, AT WEATHERSFIELD, VT (LAT 43 23 55 LONG 072 31 14)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)
OCT , 1978					JUN , 1979				
11...	1145	54	9.0	97	14...	1130	--	15.5	84
24...	1305	--	6.0	105	JUL				
NOV					19...	1115	40	21.0	134
21...	1315	--	2.0	85	AUG				
DEC					16...	1030	54	15.0	117
11...	1215	107	.5	--	SEP				
APR , 1979					13...	1050	50	13.5	122
17...	1140	--	4.0	58					
MAY									
15...	1100	--	14.0	78					

01153000 - BLACK RIVER AT NORTH SPRINGFIELD, VT (LAT 43 20 00 LONG 072 30 55)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)
OCT , 1978					MAY , 1979				
11...	1310	77	10.0	108	15...	0955	--	14.5	95
24...	1140	--	7.0	110	JUN				
31...	1220	16	8.0	--	14...	1020	--	16.0	98
NOV					JUL				
21...	1100	--	2.0	100	19...	1010	64	23.0	135
DEC					AUG				
11...	1315	151	1.0	73	16...	0915	69	17.0	133
APR , 1979					SEP				
17...	1030	--	4.5	67	13...	0940	58	17.0	121

01153500 - WILLIAMS RIVER AT BROCKWAYS MILLS, VT (LAT 43 12 31 LONG 072 31 05)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)
NOV , 1978					SEP , 1979				
07...	1500	28	8.5	110	13...	1250	26	18.0	137
DEC									
11...	1635	32	.5	88					

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CONNECTICUT RIVER BASIN--CONTINUED

01154000 - SAXTONS RIVER AT SAXTONS RIVER, VT (LAT 43 08 14 LONG 072 29 17)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)
NOV , 1978 08...	0850	23	7.0	92	SEP , 1979 13...	1550	16	19.0	103
AUG , 1979 14...	1150	26	16.0	97					

01155500 - WEST RIVER AT JAMAICA, VT (LAT 43 06 32 LONG 072 46 33)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)
NOV , 1978 08...	1115	136	7.0	53	AUG , 1979 16...	0920	71	16.5	62
DEC 13...	1030	244	.5	48					

01156000 - WEST RIVER AT NEWFANE, VT (LAT 42 59 43 LONG 072 38 13)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)
NOV , 1978 08...	1450	188	7.5	57	AUG , 1979 16...	1110	116	19.0	64
DEC 13...	1250	428	.5	53					

01157000 - ASHUELOT RIVER NEAR GILSUM, NH (LAT 43 02 21 LONG 072 16 14)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)
NOV , 1978 06...	1335	20	8.0	--	SEP , 1979 14...	1425	33	18.0	38
DEC 15...	1205	53	.5	--					

01158000 - ASHUELOT RIVER BL SURRY MT DAM, NR KEENE, NH (LAT 42 59 40 LONG 072 18 40)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)
NOV , 1978 06...	1155	30	8.5	48					

01158600 - OTTER BROOK BELOW OTTER BROOK DAM, NR KEENE, NH (LAT 42 56 45 LONG 072 14 14)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)
NOV , 1978 06...	0940	10	9.0	52	AUG , 1979 05...	1220	52	17.0	43

01161000 - ASHUELOT RIVER AT HINSDALE, NH (LAT 42 47 07 LONG 072 29 12)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)
NOV , 1978 09...	0900	162	7.5	178	AUG , 1979 09...	1115	92	22.0	200
DEC 12...	1215	317	.5	132					

HUDSON RIVER BASIN

01329000 - BATTEN KILL AT ARLINGTON, VT (LAT 43 04 38 LONG 073 09 26)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)
OCT , 1978 24...	1350	262	8.0	--	JUN , 1979 20...	1525	148	19.0	253
NOV 20...	1335	259	5.0	50	JUL 23...	1405	83	23.0	--
DEC 20...	1135	151	.0	--	AUG 23...	1045	84	18.0	--
MAR , 1979 21...	1500	518	7.5	75	SEP 19...	1104	110	14.0	196
APR 19...	0915	566	5.0	165					

01334000 - WALLOOMSAC RIVER NEAR NORTH BENNINGTON, VT (LAT 42 54 47 LONG 073 15 25)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)
OCT , 1978 05...	0845	63	12.0	258	MAY , 1979 02...	0900	368	7.0	115
NOV 20...	1600	100	5.0	173	JUN 05...	0930	170	15.0	190
DEC 20...	1320	84	.0	135	JUL 17...	0900	410	19.0	140
FEB , 1979 08...	1040	146	.0	190	SEP 12...	0945	112	13.0	155
APR 02...	1220	747	4.0	109					

MISCELLANEOUS TEMPERATURE AND SPECIFIC CONDUCTANCE MEASUREMENTS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)
ST. LAWRENCE RIVER BASIN									
04280000 - POULTNEY RIVER BELOW FAIR HAVEN, VT (LAT 43 37 40 LONG 073 18 50)									
NOV , 1978					APR , 1979				
06...	1400	271	8.5	110	11...	1500	400	4.0	110
DEC					JUL				
18...	1400	330	.0	90	18...	1000	210	20.0	125
20...	1100	70	.0	90	SEP				
JAN , 1979					05...	1100	48	21.0	130
31...	1300	340	.0	--					
MAR									
08...	1000	2130	2.0	100					
04282000 - OTTER CREEK AT CENTER RUTLAND, VT (LAT 43 36 13 LONG 073 00 49)									
NOV , 1978					APR , 1979				
07...	1320	254	8.5	110	09...	1150	802	4.0	--
27...	1100	26	1.0	--	11...	1730	690	4.0	100
DEC					JUL				
18...	1250	236	.0	95	18...	1140	1270	23.0	130
20...	1230	162	.0	--	AUG				
JAN , 1979					27...	1040	94	19.0	--
31...	0800	396	.0	--	SEP				
MAR					05...	1310	88	21.0	120
05...	1215	1060	1.0	150					
04282500 - OTTER CREEK AT MIDDLEBURY, VT (LAT 44 00 47 LONG 073 10 06)									
NOV , 1978					APR , 1979				
07...	1645	466	8.0	--	09...	1800	2590	4.5	--
DEC					11...	1245	2290	4.0	160
18...	1700	713	.0	170	JUL				
JAN , 1979					12...	1210	318	23.0	150
30...	1500	1110	.0	160	AUG				
MAR					27...	1330	217	19.0	165
05...	1515	2160	1.0	180					
08...	1305	3060	1.5	--					
12...	1125	4620	.5	--					
04284000 - JAIL BRANCH AT EAST BARRE, VT (LAT 44 09 30 LONG 072 26 44)									
OCT , 1978					MAY , 1979				
31...	1100	12	3.5	115	17...	1500	31	6.5	110
DEC					JUN				
13...	0800	19	.0	95	29...	1200	6.8	--	120
JAN , 1979					JUL				
23...	1300	62	.0	95	13...	1600	4.1	23.0	120
MAR					AUG				
07...	1400	542	.0	100	23...	0800	3.5	19.0	115
APR									
10...	1500	99	4.0	110					
04285500 - NORTH BRANCH WINOOSKI RIVER AT WRIGHTSVILLE, VT (LAT 44 17 58 LONG 072 34 45)									
OCT , 1978					MAY , 1979				
31...	1300	46	5.5	60	17...	1100	54	6.0	55
DEC					JUL				
13...	1000	42	.0	50	09...	1000	14	23.0	40
JAN , 1979					AUG				
23...	1600	94	.0	45	10...	1400	17	23.0	40
MAR					SEP				
07...	1200	594	1.0	50	04...	1600	48	21.0	45
APR									
10...	1700	307	3.5	60					
04286000 - WINOOSKI RIVER AT MONTPELIER, VT (LAT 44 15 23 LONG 072 35 36)									
OCT , 1978					MAY , 1979				
31...	1500	171	4.5	100	17...	1000	342	6.0	95
DEC					JUL				
13...	1200	234	.0	90	09...	1200	131	24.0	100
JAN , 1979					AUG				
24...	0800	401	.0	100	29...	1100	224	19.0	110
MAR					SEP				
05...	1400	2500	.0	90	07...	1400	881	19.5	110

ST. LAWRENCE RIVER BASIN--CONTINUED

04287000 - DOG RIVER AT NORTHFIELD FALLS, VT (LAT 44 10 50 LONG 072 38 27)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)
NOV , 1978					APR , 1979				
02...	1400	30	5.5	110	11...	0800	180	4.0	105
DEC					MAY				
19...	1000	30	.0	90	17...	1300	79	6.5	100
JAN , 1979					JUL				
25...	1400	82	.0	80	12...	1500	23	23.0	125
MAR					AUG				
07...	0800	1050	1.0	90	30...	1400	130	20.0	120

04288000 - MAD RIVER NEAR MORETOWN, VT (LAT 44 16 42 LONG 072 44 37)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)
NOV , 1978					APR , 1979				
01...	0730	110	5.0	110	11...	1000	280	4.0	100
DEC					MAY				
13...	1315	110	.0	90	16...	1430	156	6.5	120
JAN , 1979					JUL				
24...	0930	167	.0	95	12...	0830	34	23.0	125
MAR					AUG				
06...	1330	167	.0	85	13...	1400	--	22.0	--
APR					15...	0930	50	23.0	125
10...	1130	167	4.0	120					

04289000 - LITTLE RIVER NEAR WATERBURY, VT (LAT 44 22 12 LONG 072 46 11)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)
NOV , 1978					APR , 1979				
01...	1245	116	9.0	65	10...	1020	578	--	70
DEC					JUN				
13...	1445	17	.0	60	06...	1445	615	--	70
JAN , 1979					AUG				
31...	1645	21	.0	50	13...	1010	583	23.0	55
MAR					29...	1430	561	--	50
07...	1110	552	--	60					

04290500 - WINOOSKI RIVER NEAR ESSEX JUNCTION, VT (LAT 44 28 44 LONG 073 08 21)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)
OCT , 1978					APR , 1979				
18...	1130	1600	7.0	105	04...	1315	5210	4.5	120
19...	1230	1370	7.0	--	16...	1850	4380	3.0	97
NOV					JUL				
01...	1440	1160	7.0	130	10...	1445	115	22.0	110
DEC					AUG				
05...	1230	852	.5	120	03...	0935	307	25.0	110
JAN , 1979					30...	1015	1760	24.0	--
24...	1630	1280	.0	--					
MAR									
06...	0915	22700	--	110					

04292000 - LAMOILLE RIVER AT JOHNSON, VT (LAT 44 37 22 LONG 072 40 50)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)
NOV , 1978					MAY , 1979				
02...	1200	121	5.0	100	22...	1535	163	7.0	115
DEC					JUL				
14...	1110	173	.0	115	02...	1120	823	21.0	125
JAN , 1979					AUG				
25...	1100	410	.0	120	15...	1425	205	23.0	110
MAR					SEP				
06...	1200	2200	.5	100	04...	1405	236	21.0	120
APR									
04...	0845	1850	3.0	115					

04292500 - LAMOILLE RIVER AT EAST GEORGIA, VT (LAT 44 40 45 LONG 073 04 23)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)
NOV , 1978					APR , 1979				
02...	0940	499	5.0	100	04...	1130	3960	4.0	90
DEC					AUG				
14...	0845	420	.0	--	15...	1345	314	23.0	100
JAN , 1979					SEP				
25...	0730	900	.0	--	04...	1130	121	21.0	95
MAR									
06...	1045	5000	.0	--					

MISCELLANEOUS TEMPERATURE AND SPECIFIC CONDUCTANCE MEASUREMENTS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)
ST. LAWRENCE RIVER BASIN--CONTINUED									
04293000 - MISSISQUOI RIVER NEAR NORTH TROY, VT (LAT 44 58 22 LONG 072 23 15)									
NOV , 1978									
01...	1300	--	6.0	100					
04293500 - MISSISQUOI RIVER NEAR EAST BERKSHIRE, VT (LAT 44 57 30 LONG 072 41 55)									
NOV , 1978									
21...	1130	497	1.0	--					
04294500 - LAKE CHAMPLAIN AT BURLINGTON, VT (LAT 44 28 52 LONG 073 13 27)									
NOV , 1978					MAR , 1979				
01...	1600	--	3.0	--	06...	0800	--	5.0	--
DEC					AUG				
13...	1600	--	.0	--	03...	1100	--	24.0	--
JAN , 1979									
24...	1700	--	.0	--					

GROUND-WATER WELLS, BY COUNTY, FOR WHICH RECORDS ARE PUBLISHED

NEW HAMPSHIRE

Page

CHESHIRE COUNTY
Keene KEW 2.................................... 158

COOS COUNTY
Errol ETW 1.................................... 158
Lancaster LCW 1................................ 158

HILLSBOROUGH COUNTY
Bedford BIW 1.................................. 159
Bedford BIW 2.................................. 159
Bedford BIW 3.................................. 159
Merrimack MKW 22............................... 160
Merrimack MKW 85............................... 160
Merrimack MKW 86............................... 160
Milford MOW 36................................. 161
Nashua NAW 143................................. 161
Nashua NAW 216................................. 161
Nashua NAW 217................................. 162
Nashua NAW 218................................. 162

MERRIMACK COUNTY
Concord CVW 1.................................. 162
Concord CVW 2.................................. 163
Concord CVW 3.................................. 163
Concord CVW 4.................................. 163
Franklin FKW 1................................. 164
Hooksett HTW 5................................. 164
New London NLW 1............................... 164
Warner WCW 1................................... 165
Warner WCW 2................................... 165
Warner WCW 3................................... 165

STRAFFORD COUNTY
Lee LIW 1...................................... 166

VERMONT

Page

BENNINGTON COUNTY
Pownal PQW 1................................... 167

CHITTENDEN COUNTY
Milton MJW 3................................... 167

ESSEX COUNTY
Brighton BIW 1................................. 167

FRANKLIN COUNTY
Berkshire BKW 1................................ 168

LAMOILLE COUNTY
Morristown MPW 1............................... 168

ORANGE COUNTY
West Fairlee WOW 1............................. 168

ORLEANS COUNTY
Glover GLW 1................................... 169

RUTLAND COUNTY
Pittsford PFW 8................................ 169

WASHINGTON COUNTY
Middlesex MHW 3................................ 169
Montpelier MMW 2............................... 170
Waitsfield WAW 2............................... 170
Waitsfield WAW 3............................... 170

WINDSOR COUNTY
Chester CKW 1.................................. 171
Hartland HLW 54................................ 171
Rochester RJW 1................................ 171

CHESHIRE COUNTY

425543072175801. Local number, KEW 2 (Formerly published as Keene 2).
LOCATION.--Lat 42°55'43", long 72°17'58", Hydrologic Unit 01080201, east side of State Highway 12, about 0.5 mi (0.8 km) north of State Highway 9, and 1.1 mi (1.8 km) southwest of the center of Keene.
Owner: New Hampshire Department of Public Works and Highways.
AQUIFER.--Sand of Pleistocene age.
WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 2 in (0.05 m), depth 18 ft (5.5 m).
DATUM.--Altitude of land-surface datum is 475 ft (145 m). Measuring point: Top of casing, 4.5 ft (1.37 m) above land-surface datum.
PERIOD OF RECORD.--August 1963 to current year. Prior to January 1973, published in New Hampshire Hydrologic-Data Report No. 3.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.5 ft (0.15 m) below land-surface datum, Nov. 28, 1963; lowest measured, 6.23 ft (1.90 m) below land-surface datum, Sept. 27, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1978	4.75	JAN 19, 1979	3.43	APR 23, 1979	2.90	JUL 24, 1979	4.73
NOV 27	4.41	FEB 23	2.62	MAY 25	0.99	AUG 25	4.79
DEC 21	3.70	MAR 22	1.56	JUN 22	4.28	SEP 21	4.34

COOS COUNTY

444733071094901. Local number, ETW 1.
LOCATION.--Lat 44°47'33", long 71°09'49", Hydrologic Unit 01040001, southwest side of State Highway 26, 1.8 mi (2.9 km) northwest of the center of Errol.
Owner: U.S. Geological Survey.
AQUIFER.--Very fine sand and silt of Pleistocene age.
WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 1.25 in (0.03 m), depth 30 ft (9.14 m).
DATUM.--Altitude of land-surface datum is 1,245 ft (379 m). Measuring point: Top of casing, 3.00 ft (0.91 m) above land-surface datum.
PERIOD OF RECORD.--November 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.4 ft (2.87 m) below land-surface datum, May 22, 1969; lowest measured, 14.1 ft (4.30 m) below land-surface datum, Feb. 22, 1975.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1978	12.4	FEB 09, 1979	13.6	APR 24, 1979	11.0	AUG 25, 1979	12.6
NOV 23	13.3	27	13.4	MAY 26	11.5	SEP 22	12.4
DEC 23	13.7	MAR 20	13.3	JUN 23	11.6		
JAN 22, 1979	13.6	APR 01	12.1	JUL 23	12.2		

442830071321001. Local number, LCW 1.
LOCATION.--Lat 44°28'30", long 71°32'10", Hydrologic Unit 01080101, in gravel pit about 1,100 ft (335 m) southwest of Middle Street, 2.2 mi (3.5 km) southeast of U.S. Highway 3, and 2.0 mi (3.2 km) southeast of the center of Lancaster.
Owner: Town of Lancaster.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Driven, unused water-table well, diameter 2.5 in (0.06 m), depth 30 ft (9 m).
DATUM.--Altitude of land-surface datum is 940 ft (287 m). Measuring point: Top of casing, 1.0 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--November 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, flowing at 1.0 ft (0.30 m) above land-surface datum, April 1970, Apr. 28, 1972; lowest measured, 6.93 ft (2.11 m) below land-surface datum, July 24, 1970.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, NOVEMBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 04, 1978	2.10	JAN 22, 1979	1.80	APR 24, 1979	0.80	JUL 25, 1979	2.50
17	2.20	FEB 09	1.70	MAY 16	1.44	AUG 25	2.40
DEC 02	2.10	23	1.70	30	0.90	SEP 22	2.40
23	1.70	APR 17	1.70	JUN 25	2.10		

HILLSBOROUGH COUNTY

(Formerly published as Hillsboro County)

425811071304001. Local number, BIW 1.
LOCATION.--Lat 42°58'11", long 71°30'40", Hydrologic Unit 01070002, 24 ft (7.3 m) southwest of edge of pavement of State Highway 114, about 0.85 mi (1.37 km) northwest of intersection of State Highway 101, and 1.7 mi (2.7 km) north of the center of Bedford.
Owner: New Hampshire Department of Public Works and Highways.
AQUIFER.--Fine sand of Pleistocene age.
WELL CHARACTERISTICS.--Driven, unused water-table well, diameter 2 in (0.05 m), depth 8.9 ft (2.71 m).
DATUM.--Altitude of land-surface datum is 255 ft (78 m). Measuring point: Top of casing, 3.1 ft (0.94 m) above land-surface datum.
PERIOD OF RECORD.--December 1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.68 ft (0.51 m) below land-surface datum, Mar. 21, 1969, Mar. 23, 1971; lowest measured, 7.73 ft (2.36 m) below land-surface datum, Feb. 25, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27 1978	6.98	JAN 24, 1979	7.20	APR 25, 1979	6.02	JUL 30, 1979	5.86
NOV 27	7.09	FEB 26	7.30	MAY 29	5.90	AUG 27	6.17
DEC 11	7.67	MAR 22	6.45	JUN 26	6.31	SEP 24	5.55

425811071304002. Local number, BIW 2.
LOCATION.--Lat 42°58'11", long 71°30'40", Hydrologic Unit 01070002, 49 ft (14.9 m) southwest of edge of pavement of State Highway 114, about 0.85 mi (1.37 km) northwest of intersection of State Highway 101, and 1.7 mi (2.7 km) north of the center of Bedford.
Owner: New Hampshire Department of Public Works and Highways.
AQUIFER.--Fine sand of Pleistocene age.
WELL CHARACTERISTICS.--Driven, unused water-table well, diameter 2 in (0.05 m), depth 9 ft (2.7 m).
DATUM.--Altitude of land-surface datum is 255 ft (78 m). Measuring point: Top of casing, 3.1 ft (0.94 m) above land-surface datum.
PERIOD OF RECORD.--December 1965 to May 1968; February 1970 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.38 ft (0.42 m) below land-surface datum, Mar. 25, 1971; lowest measured, dry many times 1971-79.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27, 1978	DRY	JAN 24, 1979	DRY	APR 25, 1979	DRY	JUL 30, 1979	DRY
NOV 27	DRY	FEB 26	DRY	MAY 28	DRY	AUG 27	DRY
DEC 11	DRY	MAR 22	DRY	JUN 26	DRY	SEP 24	DRY

425811071304003. Local number, BIW 3.
LOCATION.--Lat 42°58'11", long 70°30'40", Hydrologic Unit 01070002, 100 ft (30 m) southwest of edge of pavement of State Highway 114, about 0.85 m (1.37 km) northwest of intersection of State Highway 101, and 1.7 mi (2.7 km) north of the center of Bedford.
Owner: New Hampshire Department of Public Works and Highways.
AQUIFER.--Fine sand of Pleistocene age.
WELL CHARACTERISTICS.--Driven, unused water-table well, diameter 2 in (0.05 m), depth 9 ft (2.7 m).
DATUM.--Altitude of land-surface datum is 255 ft (78 m). Measuring point: Top of casing, 3.1 ft (0.94 m) above land-surface datum.
PERIOD OF RECORD.--December 1965 to May 1968; February 1970 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.50 ft (0.76 m) below land-surface datum, Mar. 23, 1971; lowest measured, 8.73 ft (2.66 m) July 27, 1976, Jan. 24, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27, 1978	8.58	JAN 24, 1979	8.11	APR 25, 1979	7.41	JUL 30, 1979	7.92
NOV 27	8.54	FEB 26	8.60	MAY 29	7.34	AUG 27	8.21
DEC 11	8.50	MAR 22	8.10	JUN 26	7.85	SEP 24	8.03

425303071283701. Local number, MKW 22 (Formerly published as Merrimack 22).
LOCATION.--Lat 42°53'03", long 71°28'37", Hydrologic Unit 01070002, north side of Damon Clinic on west side of U.S. Highway 3, about 400 ft (122 m) south of Bedford Road, in Reeds Ferry in Merrimack.
Owner: H. A. Damon.
AQUIFER.--Gravel of Pleistocene age.
WELL CHARACTERISTICS.--Dug, unused water-table well, diameter 36 in (0.91 m), depth 16.9 ft (5.15 m).
DATUM.--Altitude of land-surface datum is about 195 ft (59 m). Measuring point: Bottom rim of hand pump, 0.80 ft (0.24 m) above land-surface datum.
PERIOD OF RECORD.--November 1958 to current year. Prior to May 1966, published in New Hampshire Basic-Data Report No. 2, Ground-Water Series.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.96 ft (1.21 m) below land-surface datum, Mar. 30, 1962; lowest measured, 12.57 ft (3.83 m) below land-surface datum, Nov. 20, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 1978	11.94	FEB 27, 1979	8.08	MAY 29, 1979	5.58	AUG 27, 1979	8.42
NOV 27	11.98	MAR 27	6.20	JUN 26	7.78	SEP 24	8.07
JAN 24, 1979	7.60	APR 25	6.10	JUL 30	7.23		

425339071281501. Local number, MKW 85 (Formerly published as Merrimack 85).
LOCATION.--Lat 42°53'39", long 71°28'15", Hydrologic Unit 01070002, 260 ft (79 m) west of U.S. Highway 3, about 0.65 mi (1.05 km) northeast of intersection of Bedford Road, near Reeds Ferry in Merrimack.
Owner: New Hampshire Department of Fish and Game.
AQUIFER.--Sand of Pleistocene age.
WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 1.00 in (0.03 m), depth 23 ft (7.0 m).
DATUM.--Altitude of land-surface datum is 180 ft (55 m). Measuring point: Top of casing is at land-surface datum.
PERIOD OF RECORD.--August 1964 to current year. Prior to June 1966, published in New Hampshire Basic-Data Report No. 2, Ground-Water Series.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.92 ft (2.41 m) below land-surface datum, Mar. 29, 1977; lowest measured, 11.23 ft (3.42 m) below land-surface datum, Nov. 18, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27, 1978	10.40	JAN 24, 1979	9.95	APR 25, 1979	8.32	JUL 30, 1979	9.47
NOV 27	10.46	FEB 23	9.37	MAY 29	8.26	AUG 27	9.73
DEC 11	10.40	MAR 22	8.82	JUN 26	9.02	SEP 24	9.80

425343071281701. Local number, MKW 86 (Formerly published as Merrimack 86).
LOCATION.--Lat 42°53'43", long 71°28'17", Hydrologic Unit 01070002, 100 ft (30 m) west of edge of pavement of southbound lane of Everett Turnpike, about 0.72 mi (1.16 km) north of Bedford Road overpass, near Reeds Ferry in Merrimack.
Owner: New Hampshire Department of Public Works and Highways.
AQUIFER.--Sand of Pleistocene age.
WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 1.25 in (0.03 m), depth 13 ft (3.96 m).
DATUM.--Altitude of land-surface datum is 175 ft (53 m). Measuring point: Top of casing, 0.2 ft (0.06 m) above land-surface datum.
PERIOD OF RECORD.--September 1964 to current year. Prior to June 1966, published in New Hampshire Basic-Data Report No. 2, Ground-Water Series.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.34 ft (0.10 m) below land-surface datum, Apr. 26, 1973; lowest measured, 3.60 ft (1.10 m) below land-surface datum, Nov. 8, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27, 1978	2.94	JAN 24, 1979	2.29	APR 25, 1979	1.17	JUL 30, 1979	1.62
NOV 27	2.81	FEB 23	2.14	MAY 29	0.94	AUG 27	2.07
DEC 11	2.68	MAR 22	1.14	JUN 26	1.19	SEP 24	2.36

425024071413001. Local number, MOW 36 (Formerly published as Milford 36).
LOCATION.--Lat 42°50'24", long 71°41'30", Hydrologic Unit 01070002, 85 ft (26 m) from north side of Old Wilton Road, about 550 ft (108 m) west of the intersection of State Highway 101, and 2.2 mi (3.5 km) west of the center of Milford.
Owner: Leonard Cushing.
AQUIFER.--Sand of Pleistocene age.
WELL CHARACTERISTICS.--Dug, unused water-table well, diameter 36 in (0.91 m), depth 14.6 ft (4.55 m), lined with concrete.
DATUM.--Altitude of land-surface datum is about 265 ft (81 m). Measuring point: Top of concrete casing on south side of well, 1.60 ft (0.49 m) above land-surface datum.
PERIOD OF RECORD.--January 1962 to current year. Prior to May 1966, published in New Hampshire Basic-Data Report No. 2, Ground-Water Series.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.68 ft (1.73 m) below land-surface datum, Mar. 29, 1963; lowest measured, 11.98 ft (3.65 m) below land-surface datum, Oct. 28, 1968.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 1978	11.14	JAN 24, 1979	7.61	APR 25, 1979	7.29	JUL 30, 1979	8.45
NOV 27	11.22	FEB 27	7.48	MAY 29	6.79	AUG 27	9.13
DEC 26	9.62	MAR 27	6.89	JUN 26	8.20	SEP 24	9.01

424752071315201. Local number, NAW 143 (Formerly published as Nashua 143).
LOCATION.--Lat 42°47'52", long 71°31'52", Hydrologic Unit 01070002, north side of State Highway 101-A, about 3.0 mi (4.8 km) west of U.S. Highway 3 opposite Round Pond, and 3.9 mi (6.3 km) west-northwest of the center of Nashua.
Owner: Roland Cadorette.
AQUIFER.--Sand of Pleistocene age.
WELL CHARACTERISTICS.--Driven, unused water-table well, diameter 1.25 in (0.03 m), depth 13.0 ft (3.96 m).
DATUM.--Altitude of land-surface datum is 200 ft (61 m). Measuring point: Top of casing, 1.5 ft (0.46 m) above land-surface datum.
PERIOD OF RECORD.--December 1958 to August 1959; January 1962 to current year. Prior to May 1966, published in New Hampshire Basic-Data Report No. 2, Ground-Water Series.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.20 ft (1.89 m) below land-surface datum, May 29, 1973; lowest measured, 11.65 ft (3.55 m) below land-surface datum, June 25, 1975.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 1978	9.02	FEB 23, 1979	7.89	MAY 29, 1979	6.85	SEP 24, 1979	7.86
NOV 27	9.33	27	7.67	JUN 26	7.43		
DEC 26	9.14	MAR 27	7.11	JUL 30	7.54		
JAN 24, 1979	8.22	APR 25	7.17	AUG 27	7.71		

424800071295001. Local number, NAW 216 (Formerly published as Nashua 216).
LOCATION.--Lat 42°48'00", long 71°29'50", Hydrologic Unit 01070002, 222 ft (68 m) east of edge of pavement of northbound lane of Everett Turnpike, about 0.63 mi (1.01 km) north of Tinker Road overpass, and 2.8 mi (4.5 km) northwest of the center of Nashua.
Owner: Pennichuck Water Works.
AQUIFER.--Sand of Pleistocene age.
WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 2 in (0.05 m), depth 37.0 ft (11.28 m).
DATUM.--Altitude of land-surface datum is 205 ft (62 m). Measuring point: Top of casing, 3.08 ft (0.94 m) above land-surface datum.
PERIOD OF RECORD.--October 1964 to December 1968; February 1970 to current year. Prior to June 1966, published in New Hampshire Basic-Data Report No. 2, Ground-Water Series.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.73 ft (8.76 m) below land-surface datum, July 17, 1978; lowest measured, 35.42 ft (10.80 m) below land-surface datum, Nov. 18, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27, 1978	31.29	JAN 24, 1979	31.34	APR 25, 1979	28.99	JUL 30, 1979	29.42
NOV 27	31.26	FEB 23	30.78	MAY 29	29.14	AUG 27	29.64
DEC 11	31.24	MAR 22	29.06	JUN 26	29.31	SEP 24	29.86

424801071294801. Local number, NAW 217 (Formerly published as Nashua 217).
LOCATION.--Lat 42°48'01", long 71°29'48", Hydrologic Unit 01070002, 410 ft (125 m) east of edge of pavement of northbound lane of Everett Turnpike, about 0.63 mi (1.01 km) north of Tinker Road overpass, and 2.8 mi (4.51 km) northwest of the center of Nashua.
Owner: Pennichuck Water Works.
AQUIFER.--Sand of Pleistocene age.
WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 2 in (0.05 m), depth 41.65 ft (12.69 m).
DATUM.--Altitude of land-surface datum is 205 ft (62 m). Measuring point: Top of casing, 3.0 ft (0.91 m) above land-surface datum.
PERIOD OF RECORD.--October 1964 to May 1968; December 1969 to current year. Prior to June 1966, published in New Hampshire Basic-Data Report No. 2, Ground-Water Series.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.49 ft (8.38 m) below land-surface datum, July 17, 1978; lowest measured, 34.07 ft (10.38 m) below land-surface datum, Nov. 18, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27, 1978	29.80	JAN 24, 1979	29.72	APR 25, 1979	27.82	JUL 30, 1979	28.39
NOV 27	29.71	FEB 23	29.41	MAY 29	27.98	AUG 27	28.50
DEC 11	29.61	MAR 22	27.90	JUN 26	28.28	SEP 24	28.62

424800071295301. Local number, NAW 218 (Formerly published as Nashua 218).
LOCATION.--Lat 42°48'00", long 71°29'53", Hydrologic Unit 01070002, 57 ft (17.4 m) east of edge of pavement of northbound lane of Everett Turnpike, about 0.63 mi (1.01 km) north of Tinker Road overpass, and 2.8 mi (4.5 km) northwest of the center of Nashua.
Owner: New Hampshire Department of Public Works and Highways.
AQUIFER.--Sand of Pleistocene age.
WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 2 in (0.05 m), depth 42.5 ft (12.95 m).
DATUM.--Altitude of land-surface datum is 205 ft (62 m). Measuring point: Top of casing, 3.1 ft (0.94 m) above land-surface datum.
PERIOD OF RECORD.--October 1964 to current year. Prior to June 1966, published in New Hampshire Basic-Data Report No. 2, Ground-Water Series.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.39 ft (8.04 m) below land-surface datum, July 17, 1978; lowest measured, 33.10 ft (10.09 m) below land-surface datum, Nov. 25, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27, 1978	29.17	JAN 24, 1979	29.76	MAY 29, 1979	26.58	JUL 30, 1979	26.95
NOV 27	29.30	FEB 23	28.56	JUN 26	26.84	AUG 27	27.26
DEC 11	29.61	MAR 22	26.71	JUL 25	26.69	SEP 24	27.58

MERRIMACK COUNTY

431526071345501. Local number, CVW 1.
LOCATION.--Lat 43°15'26", long 71°34'55", Hydrologic Unit 01070002, at south side of Bog Road, about 750 ft (230 m) west of intersection of U.S. Highways 3 and 4 and Bog Road, and 1.9 mi (3.1 km) southeast of Penacook.
Owner: U.S. Geological Survey.
AQUIFER.--Sand of Pleistocene age.
WELL CHARACTERISTICS.--Driven observation water-table well, diameter 3/4 in (0.02 m), depth 10.8 ft (3.3 m), screened 8.8 ft (2.7 m) to 10.8 ft (3.3 m).
DATUM.--Altitude of land-surface datum is 345 ft (105 m). Measuring point: Top of casing, 2.80 ft (0.85 m) above land-surface datum.
PERIOD OF RECORD.--September 1955 to current year. Prior to January 1973, published in Ground-Water Levels in United States, Northeastern States, Geological Survey Water-Supply Paper Series.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.09 ft (0.03 m) below land-surface datum, Apr. 9, 1960; lowest measured, 7.32 ft (2.23 m) below land-surface datum, Nov. 1, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27, 1978	6.01	JAN 24, 1979	4.92	APR 26, 1979	1.84	JUL 30, 1979	4.13
NOV 27	6.29	FEB 26	3.92	MAY 29	0.38	AUG 28	4.50
DEC 26	6.04	MAR 28	1.03	JUN 26	3.10	SEP 25	4.98

431224071303601. Local number, CVW 2.

LOCATION.--Lat 43°12'24", long 71°30'36", Hydrologic Unit 01070002, about 100 ft (30 m) north of the Federal Aeronautics Administration Building at Concord Municipal Airport.

Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 2 in (0.05 m), depth 60 ft (18.3 m).

DATUM.--Altitude of land-surface datum is 340 ft (104 m). Measuring point: Top of casing, 3.00 ft (0.91 m) above land-surface datum.

PERIOD OF RECORD.--August 1963 to May 1965, August 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 36.85 ft (11.23 m) below land-surface datum, Aug. 27, 1973; lowest measured, 44.62 ft (13.60 m) below land-surface datum, Aug. 1, 1967.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27, 1978	39.35	JAN 24, 1979	40.16	MAR 27, 1979	39.65	JUL 30, 1979	39.24
NOV 17	39.56	FEB 09	40.11	APR 26	39.73	AUG 27	39.30
27	39.64	26	40.33	MAY 29	39.62	SEP 25	39.46
DEC 26	39.94	MAR 23	39.89	JUN 26	39.40		

431248071290201. Local number, CVW 3.

LOCATION.--Lat 43°12'48", long 71°29'02", Hydrologic Unit 01070002, at northwest corner of intersection of State Highway 106 and Pembroke Road, and 2.8 mi (4.5 km) east of the State House in Concord.

Owner: U.S. Geological Survey.

AQUIFER.--Very fine sand of Pleistocene age.

WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 1.25 in (0.03 m), depth 72.7 ft (22.15 m).

DATUM.--Altitude of land-surface datum is 350 ft (107 m). Measuring point: Top of casing, 2.30 ft (0.70 m) above land-surface datum.

PERIOD OF RECORD.--November 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 55.56 ft (16.93 m) below land-surface datum, Sept. 27, 1973; lowest measured, 59.96 ft (18.28 m) below land-surface datum, Jan. 30, 1967.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27, 1978	56.71	JAN 24, 1979	57.14	APR 26, 1979	56.84	AUG 27, 1979	56.24
NOV 17	56.95	FEB 26	57.20	MAY 29	56.69	SEP 25	56.40
27	57.12	MAR 23	57.26	JUN 26	56.58		
DEC 26	57.29	27	57.50	JUL 30	56.46		

431049071324301. Local number, CVW 4.

LOCATION.--Lat 43°10'49", long 71°32'43", Hydrologic Unit 01070002, north side of Iron Works Road, about 700 ft (213 m) west of South Street, and 1.8 mi (2.9 km) southwest of the State House in Concord.

Owner: U.S. Geological Survey.

AQUIFER.--Lacustrine silty fine sands and clays of Pleistocene age.

WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 1.25 in (0.03 m), depth 40.71 ft (12.41 m).

DATUM.--Altitude of land-surface datum is 285 ft (87 m). Measuring point: Top of casing, 3.8 ft (1.16 m) above land-surface datum.

PERIOD OF RECORD.--November 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.93 ft (4.25 m) below land-surface datum, Apr. 23, 1969; lowest measured, 19.80 ft (6.04 m) below land-surface datum, Dec. 26, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27, 1978	19.29	JAN 24, 1979	19.56	MAR 28, 1979	17.74	JUL 30, 1979	17.72
NOV 17	19.50	FEB 09	19.13	APR 25	16.59	AUG 27	18.10
27	19.62	26	19.25	MAY 29	15.94	SEP 25	18.40
DEC 26	19.80	MAR 23	17.87	JUN 26	16.87		

432428071390701. Local number, FKW 1.
LOCATION.--Lat 43°24'28", long 71°39'07", Hydrologic Unit 01070002, about 1,500 ft (457 m) northeast of U.S. Highway 3, north of Holy Cross Convent, and 2.6 mi (4.2 km) south of Franklin.
Owner: Holy Cross Convent.
AQUIFER.--Sand of Pleistocene age.
WELL CHARACTERISTICS.--Unused water-table well, diameter 2.5 in (0.06 m), depth 52.3 ft (15.9 m).
DATUM.--Altitude of land-surface datum is 290 ft (88 m). Measuring point: Top of casing, 1.80 ft (0.55 m) above land-surface datum.
PERIOD OF RECORD.--October 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.98 ft (2.13 m) below land-surface datum, Apr. 24, 1973; lowest measured, 15.75 ft (4.80 m) below land-surface datum, Oct. 27, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 1978	13.61	JAN 24, 1979	15.42	APR 25, 1979	11.64	JUL 30, 1979	11.96
NOV 27	14.50	FEB 26	15.74	MAY 29	11.17	AUG 27	12.67
DEC 26	15.24	MAR 28	12.36	JUN 26	11.22	SEP 24	13.22

430235071275501. Local number, HTW 5.
LOCATION.--Lat 43°02'35", long 71°27'55", Hydrologic Unit 01070002, within southeastern cloverleaf of intersection of U.S. Highway 3A and Interstate Highway 93, 3.7 mi (6.0 km) south of the center of Hooksett.
Owner: New Hampshire Department of Public Works and Highways.
AQUIFER.--Crystalline rock of Devonian age.
WELL CHARACTERISTICS.--Drilled, unused bedrock well, diameter 6 in (0.15 m), depth 102.73 ft (31.31 m) above land-surface datum.
DATUM.--Land-surface datum is 258.93 ft (78.922 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft (0.91 m) above land-surface datum.
PERIOD OF RECORD.--April 1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.69 ft (12.40 m) below land-surface datum, Apr. 28, 1967; lowest measured, 51.96 ft (15.84 m) below land-surface datum, Feb. 10, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 1978	50.92	JAN 24, 1979	48.30	APR 25, 1979	46.75	JUL 30, 1979	48.26
NOV 27	51.28	FEB 23	47.49	MAY 29	46.87	AUG 27	48.99
DEC 26	50.83	MAR 27	46.91	JUN 26	46.88	SEP 24	49.56

432343071570901. Local number, NLW 1.
LOCATION.--Lat 43°23'43", long 71°57'09", Hydrologic Unit 01070003, at north side of Golf Course Road, about 500 ft (150 m) east of intersection of State Highway 114 and Golf Course Road, and 2.1 mi (3.4 km) southeast of New London.
Owner: W. S. Mariner.
AQUIFER.--Sandy till of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 36 in (0.91 m), depth 21 ft (6.4 m), lined with stone to 21 ft (6.4 m), open end.
DATUM.--Altitude of land-surface datum is 1,020 ft (310 m). Measuring point: Top of 2-in (0.05 m) casing, 4.00 ft (1.22 m) above land-surface datum.
PERIOD OF RECORD.--October 1947 to current year. Prior to January 1956, published in Water Levels and Artesian Pressures in Observation Wells in the United States: Part 1. Northeastern States; Geological Survey Water-Supply Paper Series. January 1956 to November 1972, published in Ground-Water Levels in the United States, Northeastern States; Geological Survey Water-Supply Paper Series.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.80 ft (0.24 m) below land-surface datum, Apr. 2, 1963; lowest measured, 16.90 ft (5.15 m) below land-surface datum, Dec. 28, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 1978	14.94	JAN 22, 1979	13.49	APR 23, 1979	4.29	JUL 30, 1979	9.57
NOV 22	15.07	FEB 26	12.20	MAY 29	3.82	AUG 25	10.79
DEC 23	15.70	MAR 22	3.55	JUN 28	8.50	SEP 26	11.50

431540071452801. Local number, WCW 1.

LOCATION.--Lat 43°15'40", long 71°45'28", Hydrologic Unit 01070003, 44 ft (13.4 m) northeast of edge of pavement of northbound lane of Interstate Highway 89, about 2 mi (3.2 km) southeast of State Highway 103 overpass in Warner.

Owner: New Hampshire Department of Public Works and Highways.

AQUIFER.--Sand and fine gravel of Pleistocene age.

WELL CHARACTERISTICS.--Driven, unused water-table well, diameter 2 in (0.05 m), depth 42.8 ft (13.05 m).

DATUM.--Altitude of land-surface datum is 424 ft (129 m). Measuring point: Top of casing, 3.2 ft (0.98 m) above land-surface datum.

PERIOD OF RECORD.--December 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.94 ft (7.60 m) below land-surface datum, May 5, 1969; lowest measured, 33.82 ft (10.31 m) below land-surface datum, Dec. 17, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27, 1978	32.28	JAN 24, 1979	32.35	APR 26, 1979	29.91	JUL 30, 1979	29.38
NOV 27	32.45	FEB 26	31.94	MAY 29	28.35	AUG 27	30.11
DEC 11	32.75	MAR 23	31.32	JUN 26	28.90	SEP 24	30.60

431540071452802. Local number, WCW 2.

LOCATION.--Lat 43°15'40", long 71°45'28", Hydrologic Unit 01070003, 69 ft (21 m) northeast of edge of pavement of northbound lane of Interstate Highway 89, about 2 mi (3.2 km) southeast of State Highway 103 overpass in Warner.

Owner: New Hampshire Department of Public Works and Highways.

AQUIFER.--Sand and fine gravel of Pleistocene age.

WELL CHARACTERISTICS.--Driven, unused water-table well, diameter 2 in (.05 m), depth 43.7 ft (13.32 m).

DATUM.--Altitude of land-surface datum is 424 ft (129 m). Measuring point: Top of casing, 2.3 ft (0.70 m) above land-surface datum.

PERIOD OF RECORD.--December 1965 to June 1968, February 1970 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.24 ft (8.00 m) below land-surface datum, Apr. 26, 1973; lowest measured, 33.90 ft (10.33 m) below land-surface datum, Dec. 15, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27, 1978	32.28	JAN 24, 1979	32.35	APR 26, 1979	29.89	JUL 30, 1979	29.38
NOV 27	32.45	FEB 26	31.93	MAY 29	28.35	AUG 27	30.12
DEC 11	32.75	MAR 23	31.32	JUN 26	28.91	SEP 24	30.58

431540071452803. Local number, WCW 3.

LOCATION.--Lat 43°15'40", long 71°45'28", Hydrologic Unit 01070003, 103 ft (31.4 m) northeast of edge of pavement of northbound lane of Interstate Highway 89, about 2 mi (3.2 km) southeast of State Highway 103 overpass in Warner.

Owner: New Hampshire Department of Public Works and Highways.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 2 in (0.05 m), depth 60 ft (18.3 m).

DATUM.--Altitude of land-surface datum is 424 ft (129 m). Measuring point: Top of casing, 3.0 ft (0.91 m) above land-surface datum.

PERIOD OF RECORD.--February 1967 to June 1968, February 1970 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.53 ft (7.78 m) below land-surface datum, Apr. 27, 1973; lowest measured, 32.27 ft (9.84 m) below land-surface datum, Feb. 25, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, OCTOBER 1978 TO AUGUST 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27, 1978	31.86	JAN 24, 1979	31.52	APR 26, 1979	29.56	JUL 30, 1979	28.91
NOV 27	31.90	FEB 26	31.33	MAY 29	27.91	AUG 27	29.59
DEC 11	31.96	MAR 23	31.01	JUN 26	28.44		

STRAFFORD COUNTY

430721071005001. Local number, LIW I (Formerly published as Lee 1).

LOCATION.--Lat 43°07'21", long 71°00'50", Hydrologic Unit 01060003, southwest side of Bennett Road about 200 ft (60 m) from the west corner of the Lee Town Green.
Owner: Mildred Carlson.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 40 in (1.02 m) depth 32.8 ft (10.0 m), lined with stone to 32.8 ft (10.0 m).

DATUM.--Altitude of land-surface datum is 190 ft (58 m). Measuring point: Top of stone cover, at land-surface datum.

PERIOD OF RECORD.--November 1953 to current year. Prior to January 1958, published in New Hampshire Basic-Data Report No. 1, Ground-Water Series. Prior to January 1956, published in Water Levels and Artesian Pressures in Observation Wells in the United States: Part 1. Northeastern States; Geological Survey Water-Supply Paper Series. January 1956 to December 1972, published in Ground-Water Levels in the United States, Northeastern States; Geological Survey Water-Supply Paper Series.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.48 ft (8.68 m) below land-surface datum, Mar. 17, 1977; lowest measured, 32.35 ft (9.86 m) below land-surface datum, Nov. 1, 27, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 1978	31.78	JAN 29, 1979	30.20	APR 26, 1979	30.30	JUL 30, 1979	31.25
NOV 27	31.63	FEB 27	30.69	MAY 29	29.21	AUG 28	31.34
DEC 22	31.58	MAR 24	30.15	JUN 26	30.01	SEP 25	31.37

BENNINGTON COUNTY

424810073160401. Local number, POW 1.
LOCATION.--Lat 42°48'10", long 73°16'04", Hydrologic Unit 02020003, in front of residence on west side of State Highway 346 and 0.15 mi (0.24 km) south of post office at North Pownal.
Owner: Robert Rudd, Sr.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 24 in (0.61 m), depth 18 ft (5.5 m), cased with stone to 18 ft (5.5 m), open end.
DATUM.--Altitude of land-surface datum is 515 ft (157 m). Measuring point: Top of 0.75-in (0.02 m) diameter hole drilled in center of 0.38-in (0.01 m) thick steel cover at land-surface datum.
PERIOD OF RECORD.--October 1964 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.28 ft (3.13 m) below land-surface datum, Mar. 26, 1977; lowest measured, 16.59 ft (5.06 m) below land-surface datum, Oct. 19, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27, 1978	13.32	JAN 27, 1979	10.75	APR 24, 1979	12.56	JUL 30, 1979	13.91
NOV 28	14.77	FEB 24	12.78	MAY 30	13.13	AUG 24	13.90
DEC 24	13.63	MAR 27	11.74	JUN 27	13.76	SEP 21	13.38

CHITTENDEN COUNTY

443646073124901. Local number, MJW 3.
LOCATION.--Lat 44°36'46", long 73°12'49", Hydrologic Unit 02010005, about 600 ft (183 m) south of manager's residence at Vermont Sandbar Waterfowl Development Area, about 400 ft (122 m) west of U.S. Highway 2, and 0.9 mi (1.4 km) northwest of Lamoille River bridge at Milton.
Owner: U.S. Geological Survey.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Driven observation water-table well, diameter 1.25 in (0.03 m), depth 40 ft (12.2 m), screened 38 to 40 ft (11.6 to 12.2 m).
DATUM.--Altitude of land-surface datum is 160 ft (49 m). Measuring point: Top of casing, 4.00 ft (1.22 m) above land-surface datum.
PERIOD OF RECORD.--November 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.97 ft (6.70 m) below land-surface datum, May 29, 1974; lowest measured, 37.82 ft (11.53 m) below land-surface datum, Feb. 26, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 1978	29.84	JAN 26, 1979	33.78	APR 25, 1979	30.95	JUL 27, 1979	30.66
NOV 27	31.42	FEB 23	34.42	MAY 28	27.68	AUG 28	31.79
DEC 27	32.73	MAR 28	33.39	JUN 27	29.96	SEP 24	32.77

ESSEX COUNTY

444731071514701. Local number, BIW 1.
LOCATION.--Lat 44°47'31", long 71°51'47", Hydrologic Unit 01110000, south of road and just west of parking lot for Brighton State Park Beach at Brighton.
Owner: U.S. Geological Survey.
AQUIFER.--Medium and coarse sand of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in (0.03 m), depth 35 ft (10.7 m), screened 33 to 35 ft (10.1 to 10.7 m).
DATUM.--Altitude of land-surface datum is 1,180 ft (360 m). Measuring point: Top of casing, 4.00 ft (1.22 m) above land-surface datum.
PERIOD OF RECORD.--November 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.94 ft (0.59 m) below land-surface datum, Apr. 25, 1974; lowest measured, 4.94 ft (1.51 m) below land-surface datum, July 27, 1975, June 24, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 1978	3.80	JAN 26, 1979	3.99	APR 27, 1979	2.73	JUL 25, 1979	4.52
NOV 27	3.97	FEB 25	3.99	MAY 25	3.28	AUG 27	4.46
DEC 27	3.98	MAR 26	2.18	JUN 28	4.02	SEP 19	3.79

FRANKLIN COUNTY

445603072422901. Local number, BKW 1.
LOCATION.--Lat 44°56'03", long 72°42'29", Hydrologic Unit 02010007, at southeast end of State Highway 118 bridge on Missisquoi River at East Berkshire.
Owner: U.S. Geological Survey.
AQUIFER.--Fine sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in (0.03 m), depth 51 ft (15.5 m), screened 49 to 51 ft (14.9 to 15.5 m).
DATUM.--Altitude of land-surface datum is 425 ft (130 m). Measuring point: Top of casing, 4.00 ft (1.22 m) above land-surface datum.
PERIOD OF RECORD.--November 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.78 ft (2.98 m) below land-surface datum, Apr. 25, 1978; lowest measured, 16.43 ft (5.01 m) below land-surface datum, Aug. 26, 1975.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 1978	14.86	JAN 26, 1979	12.46	APR 25, 1979	12.30	JUL 27, 1979	15.66
NOV 27	14.77	FEB 23	13.76	MAY 28	14.07	AUG 28	14.83
DEC 27	14.54	MAR 28	15.33	JUN 27	15.29	SEP 24	14.54

LAMOILLE COUNTY

443405072323501. Local number, MPW 1.
LOCATION.--Lat 44°34'05", long 72°32'35", Hydrologic Unit 02010005, Vermont Highway Department right-of-way off State Highway 15 and 3 mi (5 km) east of Morrisville.
Owner: U.S. Geological Survey.
AQUIFER.--Silty, fine to medium sand of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in (0.03 m), depth 50 ft (15.2 m), screened 48 to 50 ft (14.6 to 15.2 m).
DATUM.--Altitude of land-surface datum is 660 ft (201 m). Measuring point: Top of casing, 4.00 ft (1.22 m) above land-surface datum.
PERIOD OF RECORD.--October 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.87 ft (4.53 m) below land-surface datum, Jan. 27, 1978; lowest measured, 20.40 ft (6.22 m) below land-surface datum, Nov. 27, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 1978	20.15	JAN 26, 1979	18.68	APR 25, 1979	17.35	JUL 27, 1979	19.58
NOV 27	20.40	FEB 23	18.78	MAY 28	17.99	AUG 28	19.29
DEC 27	20.10	MAR 28	17.27	JUN 27	18.66	SEP 24	19.78

ORANGE COUNTY

435343072151801. Local number, WOW 1.
LOCATION.--Lat 43°53'43", long 72°15'18", Hydrologic Unit 01080103, 60 ft (18 m) west of salt shed and 1.3 mi (2.1 km) south-southeast of West Fairlee Village.
Owner: U.S. Geological Survey.
AQUIFER.--Sand of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in (0.03 m), depth 54 ft (16.5 m) screened 52 to 54 ft (15.9 to 16.5 m).
DATUM.--Altitude of land-surface datum is 700 ft (213 m). Measuring point: Top of casing, 2.00 ft (0.61 m) above land-surface datum.
PERIOD OF RECORD.--November 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.71 ft (0.22 m) below land-surface datum, Jan. 26, 1978; lowest measured, 5.43 ft (1.66 m) below land-surface datum, Nov. 18, 1970.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1978	4.99	JAN 25, 1979	3.80	APR 24, 1979	2.15	JUL 26, 1979	4.58
NOV 27	5.18	FEB 22	4.10	MAY 25	2.33	AUG 27	4.95
DEC 27	5.10	MAR 26	0.79	JUN 26	3.71	SEP 25	4.90

ORLEANS COUNTY

443952072114001. Local number, GLW 1.
LOCATION.--Lat 44°39'52", long 72°11'40", Hydrologic Unit 01110000, at Vermont Highway Department salt shed west of State Highway 16 and 3 mi (5 km) south of Glover Village.
Owner: U.S. Geological Survey.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in (0.03 m), depth 82 ft (25 m), screened 80 to 82 ft (24.4 to 25 m).
DATUM.--Altitude of land-surface datum is 1,200 ft (366 m). Measuring point: Top of casing, 4.00 ft (1.22 m) above land-surface datum.
PERIOD OF RECORD.--November 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.11 ft (3.69 m) below land-surface datum, May 23, 1969; lowest measured, 18.95 ft (5.78 m) below land-surface datum, Mar. 28, 1967.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 1978	17.19	JAN 26, 1979	18.06	APR 25, 1979	15.36	JUL 27, 1979	15.44
NOV 27	17.61	FEB 23	17.74	MAY 28	14.87	AUG 28	16.31
DEC 27	17.97	MAR 28	17.25	JUN 27	14.87	SEP 24	16.66

RUTLAND COUNTY

434217073010601. Local number, PFW 8.
LOCATION.--Lat 43°42'17", long 73°01'[illegible]", Hydrologic Unit 02010002, 12 ft (4 m) west of storage building at St. Alphonsus Cemetery at Pittsford.
Owner: U.S. Geological Survey.
AQUIFER.--Medium to fine sand of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in (0.03 m), depth 42 ft (12.8 m), screened 40 to 42 ft (12.2 to 12.8 m).
DATUM.--Altitude of land-surface datum is 490 ft (149 m). Measuring point: Top of casing, 2.00 ft (0.61 m) above land-surface datum.
REMARKS.--Well pulled Nov. 8, 1968, point replaced, depth changed from 43 ft (13.1 m) to 42 ft (12.8 m), old 3-ft (0.9 m) point was completely encrusted.
PERIOD OF RECORD.--October 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.17 ft (10.42 m) below land-surface datum, May 26, 1976; lowest measured, 39.59 ft (12.07 m) below land-surface datum, Oct. 18, 1957.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1978	36.17	JAN 25, 1979	36.10	APR 26, 1979	35.20	JUL 26, 1979	35.31
NOV 27	36.31	FEB 22	36.26	MAY 25	35.29	AUG 27	36.16
DEC 27	36.31	MAR 26	35.33	JUN 26	35.55	SEP 25	36.28

WASHINGTON COUNTY

441829072413901. Local number, MGW 3.
LOCATION.--Lat 44°18'29", long 72°41'39", Hydrologic Unit 02010003, adjacent to salt shed at Vermont Highway Department garage off U.S. Highway 2 and 1.25 mi (2.01 km) west of Middlesex Village.
Owner: U.S. Geological Survey.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in (0.03 m), depth 50 ft (15.2 m), screened 48 to 50 ft (14.6 to 15.2 m).
DATUM.--Land-surface datum is 453.72 ft (138.294 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft (0.91 m) above land-surface datum.
PERIOD OF RECORD.--October 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.99 ft (4.87 m) below land-surface datum, Feb. 24, 1976; lowest measured, 23.74 ft (7.24 m) below land-surface datum, Sept. 25, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 1978	22.95	JAN 26, 1979	20.98	APR 25, 1979	19.70	JUL 27, 1979	23.25
NOV 27	23.15	FEB 21	21.72	MAY 28	19.75	AUG 27	22.34
DEC 27	21.84	MAR 24	18.20	JUN 27	22.07	SEP 24	22.99

441552072341901. Local number, MMW 2.
LOCATION.--Lat 44°15'52", long 72°34'19", Hydrologic Unit 02010003, at southeast corner of garage at Nine Winter Street in Montpelier.
Owner: U.S. Geological Survey.
AQUIFER.--Medium to coarse sand of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in (0.03 m), depth 26 ft (7.9 m), screened 24 to 26 ft (7.3 to 7.9 m).
DATUM.--Altitude of land-surface datum is 520 ft (158 m). Measuring point: Top of casing, 0.10 ft (0.03 m) above land-surface datum.
PERIOD OF RECORD.--October 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.09 ft (3.38 m) below land-surface datum, Apr. 24, 1969; lowest measured, 16.84 ft (5.13 m) below land-surface datum, Sept. 25, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27, 1978	16.50	JAN 26, 1979	15.89	APR 25, 1979	12.95	JUL 27, 1979	16.20
NOV 27	16.63	FEB 23	16.07	MAY 25	14.47	AUG 28	16.25
DEC 27	16.55	MAR 28	12.31	JUN 27	15.42	SEP 24	15.82

441215072483101. Local number, WAW 2.
LOCATION.--Lat 44°12'15", long 72°48'31", Hydrologic Unit 02010003, at rest area on east side of State Highway 100 and 1.3 mi (2.1 km) northeast of Waitsfield Village.
Owner: U.S. Geological Survey.
AQUIFER.--Silty gravel of Pleistocene age.
WELL CHARACTERISTICS.--Drive and wash observation water-level well, diameter 1.25 in (0.03 m), depth 45.5 ft (13.9 m), screened 43.5 to 45.5 ft (13.3 to 13.9 m).
DATUM.--Altitude of land-surface datum is 685 ft (209 m). Measuring point: Top of casing, 2.00 ft (0.61 m) above land-surface datum.
PERIOD OF RECORD.--June 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.69 ft (1.43 m) below land-surface datum, Apr. 25, 1977; lowest measured, 7.62 ft (2.32 m) below land-surface datum, July 26, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1978	7.16	JAN 25, 1979	6.67	APR 24, 1979	6.07	JUL 26, 1979	7.62
NOV 27	7.41	FEB 22	7.09	MAY 25	6.51	AUG 27	7.05
DEC 27	7.29	MAR 26	4.97	JUN 26	7.34	SEP 25	7.21

441033072500201. Local number, WAW 3.
LOCATION.--Lat 44°10'33", long 72°50'02", Hydrologic Unit 02010003, town of Waitsfield, southeast of Vermont Highway Department salt shed on State Highway 100 and 0.5 mi (0.8 km) southeast of Irasville Village.
Owner: U.S. Geological Survey.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Drive and wash observation water-level well, diameter 1.25 in (0.03 m), depth 53 ft (16.2 m), screened 51 to 53 ft (15.5 to 16.2 m).
DATUM.--Altitude of land-surface datum is 715 ft (218 m). Measuring point: Top of casing, 3.25 ft (0.99 m) above land-surface datum.
PERIOD OF RECORD.--June 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.34 ft (0.71 m) below land-surface datum, Feb. 24, 1976; lowest measured, 8.00 ft (2.44 m) below land-surface datum, Sept. 25, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1978	7.52	JAN 25, 1979	6.64	APR 24, 1979	5.72	JUL 26, 1979	7.76
NOV 27	7.67	FEB 22	7.05	MAY 25	6.30	AUG 27	7.27
DEC 27	6.97	MAR 26	4.76	JUN 26	7.28	SEP 25	7.08

WINDSOR COUNTY

431551072350601. Local number, CEW 1.
LOCATION.--Lat 43°15'51", long 72°35'06", Hydrologic Unit 01080107, at Vermont Highway Department salt shed on Elm Street in Chester.
Owner: U.S. Geological Survey.
AQUIFER.--Boulders, coarse gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in (0.03 m), depth 22 ft (6.7 m), screened 20 to 22 ft (6.1 to 6.7 m).
DATUM.--Altitude of land-surface datum is 580 ft (177 m). Measuring point: Top of casing, 2.00 ft (0.61 m) above land-surface datum.
PERIOD OF RECORD.--November 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.81 ft (0.55 m) below land-surface datum, Mar. 28, 1978; lowest measured, 6.31 ft (1.92 m) below land-surface datum, Sept. 28, 1967.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1978	5.65	JAN 25, 1979	6.04	APR 24, 1979	3.47	JUL 26, 1979	5.88
NOV 27	5.69	FEB 22	5.42	MAY 25	2.50	AUG 27	5.83
DEC 27	5.40	MAR 26	1.85	JUN 26	5.65	SEP 25	5.72

433240072242901. Local number, HLW 54.
LOCATION.--Lat 43°32'40", long 72°24'29", Hydrologic Unit 01080104, at northeast corner of fire station in Hartland.
Owner: U.S. Geological Survey.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-level well, diameter 1.25 in (0.03 m), depth 51 ft (15.54 m), screened 49 to 51 ft (14.93 to 15.54 m).
DATUM.--Altitude of land-surface datum is 575 ft (175 m). Measuring point: Top of casing, 4.00 ft (1.22 m) above land-surface datum.
PERIOD OF RECORD.--August 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.65 ft (2.03 m) below land-surface datum, July 26, 1973; lowest measured, 9.94 ft (3.03 m) below land-surface datum, Oct. 22, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1978	9.80	JAN 25, 1979	8.20	APR 24, 1979	7.58	JUL 26, 1979	9.27
NOV 27	9.81	FEB 22	8.33	MAY 25	7.33	AUG 27	9.55
DEC 27	9.39	MAR 26	7.26	JUN 26	8.70	SEP 25	9.73

435129072483301. Local number, RJW 1.
LOCATION.--Lat 43°51'29", long 72°48'33", Hydrologic Unit 01080105, adjacent to salt shed at Vermont Highway Department garage 1.3 mi (2.1 km) south of Rochester Village.
Owner: U.S. Geological Survey.
AQUIFER.--Sand of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in (0.03 m), depth 73 ft (22.3 m), screened 71 to 73 ft (21.6 to 22.3 m).
DATUM.--Altitude of land-surface datum is 800 ft (244 m). Measuring point: Top of casing, 4.00 ft (1.22 m) above land-surface datum.
PERIOD OF RECORD.--October 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.50 ft (1.37 m) below land-surface datum, Mar. 26, 1968; lowest measured, 13.05 ft (3.98 m) below land-surface datum, Aug. 25, 1975.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1978	11.30	JAN 25, 1979	9.63	APR 24, 1979	7.21	JUL 26, 1979	12.34
NOV 27	11.66	FEB 22	11.10	MAY 25	10.37	AUG 27	12.44
DEC 27	11.50	MAR 26	5.01	JUN 26	11.17	SEP 25	12.03

INDEX

Page
Accuracy of field data and computed results...... 12
Ad Chase Brook near Pittsburg, NH................ 143
Albany Brook tributary near Bartlett, NH......... 142
Algae, definition of............................. 3
Alton, NH, West Alton Brook near................. 143
Ammonoosuc River, at Bethlehem Junction, NH......66,151
  near Bath, NH.................................. 67
Androscoggin River, at Errol, NH................. 16
  near Gorham, NH................................ 17
Androscoggin River basin, crest-stage
      partial-record station in.................. 142
  gaging-station records in...................... 15-17
  lakes in, capacity of.......................... 16-17
Aquifer, definition of........................... 5
Arlington, VT, Batten Kill at....................103,153
Artesian, definition of.......................... 5
Ash mass, definition of.......................... 5
Ashland, NH, Squam River at......................29,149
Ashuelot River, at Hinsdale, NH..................101,153
  below Surry Mountain Dam, near Keene, NH.......99,153
  near Gilsum, NH................................98,153
  South Branch, at Webb, near Marlborough, NH.... 146
Ayers Brook at Randolph, VT......................76,151

Bacteria, definition of.......................... 5
Baker River near Rumney, NH......................145,148
Ball Mountain Reservoir, VT, contents of......... 102
Bartlett, NH, Albany Brook tributary near........ 142
Bath, NH, Ammonoosuc River near.................. 67
Batten Kill at Arlington, VT.....................103,153
Bed material, definition of...................... 5
Bedford, NH, McQuade Brook near.................. 143
Bennington County, ground-water levels........... 167
Bethlehem Junction, NH, Ammonoosuc River at......66,151
Big Brook near Pittsburg, NH.....................55,150
Biochemical oxygen demand, definition of......... 5
Biomass, definition of........................... 5
Biomass pigment ratio, definition of............. 5
Black River (Connecticut River basin), at
      Covered Bridge, at Weathersfield, VT.......82,152
  at North Springfield, VT.......................83,152
Black River (St. Lawrence River basin) at
      Coventry, VT...............................132-140
Blackwater Reservoir, NH, contents of............ 54
Blackwater River near Webster, NH................40,149
Bottom material, definition of................... 5
Bradford, NH, West Branch Warner River near......39,149
Bristol, NH, Smith River near....................30-31,149
Brockways Mills, VT, Williams River at...........84,152
Burlington, VT, Lake Champlain at................122,156

Cells/volume, definition of...................... 6
Center Rutland, VT, Otter Creek at...............106,154
Cfs-day, definition of........................... 6
Chemical oxygen demand, definition of............ 6
Cherry Mountain Brook tributary near
      Twin Mountain, NH.......................... 143
Cheshire County, ground-water levels in.......... 158
Chittenden County, ground-water levels in........ 167
Chlorophyll, definition of....................... 6
Clyde River at Newport, VT....................... 141
Cocheco River at Dover, NH....................... 144
Cold River at Drewsville, NH..................... 146
Collection and computation of
  water-discharge data........................... 11-13
  ground-water data.............................. 13
  surface-water data............................. 11-12
  water-quality data............................. 13
Color, definition of............................. 6
Comerford Reservoir, NH, contents of............. 102
Concord, NH, Merrimack River at..................41-43,145
  Soucook River near............................. 44
Connecticut River, at First Connecticut
      Lake, near Pittsburg, NH...................56,150
  at North Stratford, NH......................... 59
  at North Walpole, NH........................... 86
  at Walpole, NH................................. 87-95
  at Wells River, VT............................. 68-71
  at West Lebanon, NH............................78,152
  at White River Junction, VT....................78,152
  below Indian Stream, near Pittsburg, NH........57,150
  near Dalton, NH................................61,151

Page
Connecticut River basin, crest-stage
      partial-record stations in................. 143
  discharge measurements at miscellaneous
      sites in................................... 146
  gaging-station records in......................55-102
  miscellaneous temperature and specific
      conductance measurements in................150-153
  reservoirs in.................................. 102
Contents, definition of.......................... 6
Contoocook River, at Penacook, NH................ 145
  at Peterborough, NH............................ 145
  below Hopkinton Dam, at West Hopkinton, NH.....38,149
  near Henniker, NH.............................. 145
Control, definition of........................... 6
Conway, NH, Saco River near......................20,147
Cooperation...................................... 1
Coos County, ground-water levels in.............. 158
Coventry, VT, Black River at.....................132-140
Crystal Lake, NH, capacity of.................... 102
Cubic feet per second per square mile,
      definition of.............................. 6
Cubic foot per second, definition of............. 6

Dalton, NH, Connecticut River near...............61,151
Data, accuracy of................................ 12
  other available................................ 13
  ground-water, collection of.................... 13
  surface-water,
      collection and computation of.............. 11-12
  water-quality,
      collection and examination of.............. 13
Deerfield Center, NH, Lamprey River near.........144,147
  Lamprey River tributary near...................144,147
Definition of terms.............................. 3
Diamond River near Wentworth Location, NH........ 15
Discharge, definition of......................... 6
Dissolved, definition of......................... 6
Diversity index, definition of................... 6
Dog River at Northfield Falls, VT................112,155
Dover, NH, Cocheco River at...................... 144
  Isinglass River near........................... 144
Downstream order and station number,
      explanation of............................. 10
Drainage area, definition of..................... 6
Drainage basin, definition of.................... 6
Drewsville, NH, Cold River at.................... 146
Dry mass, definition of.......................... 5
Dublin, NH, Mud Pond tributary near.............. 143
Dudley Brook near Exeter, NH..................... 25
Durham, NH, Oyster River near....................23,147

East Barre Detention Reservoir, VT,
      contents of................................ 110
East Barre, VT, Jail Branch at...................108,154
East Berkshire, VT, Missisquoi River near........121,156
East Georgia, VT, Lamoille River at..............119,155
East Haven, VT, East Branch Passumpsic
      River near................................. 62
East Hereford, Quebec, Halls Stream near.........58,150
East Orange Branch at East Orange, VT............73,151
East Weare, NH, Piscataquog River near...........45,150
Effingham Falls, NH, Ossipee River at............21,147
Ellis River, near Jackson, NH....................18,147
  tributary near Jackson, NH..................... 142
Epping, NH, Lamprey River near...................144,148
  Lamprey River tributary near...................144,148
Epsom, NH, Marden Brook near..................... 143
Errol, NH, Androscoggin River at................. 16
Essex County, ground-water levels in............. 167
Essex Junction, VT, Winooski River near.....116-117,155
Etna, NH, Mink Brook near........................75,151
Everett Lake, NH, contents of.................... 54
Exeter, NH, Dudley Brook near.................... 25

Fair Haven, VT, Poultney River below.............105,154
Fecal coliform bacteria, definition of........... 5
Fecal streptococcal bacteria, definition of...... 5
First Connecticut Lake, NH, contents of.......... 102
Franklin County, ground-water levels in.......... 168
Franklin Falls Reservoir, NH, contents of........ 54
Franklin Junction, NH, Merrimack River at........ 145
Freedom, NH, Square Brook near................... 142

Page
Gage height, definition of........................ 6
Gaging station, definition of..................... 6
Gilford, NH, Poor Farm Brook near..............32-33,149
Gilsum, NH, Ashuelot River near...................98,153
Goffstown, NH, Piscataquog River near............ 145
Goose Hollow, NH, Mad River at.................... 145
Goose Pond, NH, capacity of....................... 102
Gorham, NH, Androscoggin River near.............. 17
  Josh Brook near................................. 142
Grafton Pond, NH, capacity of..................... 102
Ground-water levels in New Hampshire............158-166
  in Vermont......................................167-171
Ground-water-level records, explanation of....... 13
Groveton, NH, Upper Ammonoosuc River near........60,151

Halls Stream near East Hereford, Quebec..........58,150
Hampton Falls River near Hampton Falls, NH....... 142
Hampton River basin, crest-stage partial-
    record station in............................ 142
Hancock Branch tributary near Lincoln, NH........ 142
Hardness, definition of........................... 6
Henniker, NH, Contoocook River near.............. 145
Hillsborough County,
    ground-water levels in.......................159-162
Hinsdale, NH, Ashuelot River at..................101,153
Hopkinton Lake, NH, contents of.................. 54
Hudson River basin,
    gaging-station records in....................103-104
  miscellaneous temperature and specific
    conductance measurements in.................. 153
Hydrologic conditions............................. 3
  graph of.. 4
Hydrologic unit, definition of.................... 7

Instantaneous discharge, definition of........... 6
Introduction...................................... 1
Isinglass River near Dover, NH................... 144

Jackson, NH, Ellis River near.....................18,147
  Ellis River tributary near...................... 142
Jail Branch at East Barre, VT....................108,154
Jamaica, VT, West River at........................96,153
Johnson, VT, Lamoille River at...................118,155
Josh Brook near Gorham, NH........................ 142

Keene, NH, Ashuelot River near....................99,153
  Otter Brook near................................100,153

Lake Champlain, at Burlington, VT................122,156
Lake Francis, NH, contents of..................... 102
Lake Memphremagog at Newport, VT.................. 131
Lake Winnipesaukee at Weirs Beach, NH............ 34
Lake Winnipesaukee Outlet at Lakeport, NH........35,149
Lakes and reservoirs:
  Ball Mountain Reservoir, VT..................... 102
  Blackwater Reservoir, NH........................ 54
  Champlain, Lake, NY-VT..........................122-130
  Comerford Reservoir, NH......................... 102
  Crystal Lake, NH................................ 102
  East Barre Detention Reservoir, VT.............. 110
  Everett Lake, NH................................ 54
  First Connecticut Lake, NH...................... 102
  Francis, Lake, NH............................... 102
  Franklin Falls Reservoir, NH.................... 54
  Goose Pond, NH.................................. 102
  Grafton Pond, NH................................ 102
  Hopkinton Lake, NH.............................. 54
  MacDowell Reservoir, NH......................... 54
  Mascoma Lake, NH................................ 102
  Memphremagog, Lake, at Newport, VT.............. 131
  Mollys Falls Reservoir, VT...................... 111
  Moore Reservoir, NH............................. 102
  Newfound Lake, NH............................... 54
  North Hartland Reservoir, VT.................... 102
  North Springfield Reservoir, VT................. 102
  Otter Brook Lake, NH............................ 102
  Peacham Pond, VT................................ 111
  Second Connecticut Lake, NH..................... 102
  Sunapee Lake, NH................................ 102
  Surry Mountain Lake, NH......................... 102
  Townshend Reservoir, VT......................... 102
  Union Village Reservoir, VT..................... 102
  Waterbury Reservoir near Waterbury, VT.......... 114
  Winnipesaukee, Lake, at Weirs Beach, NH......... 34
  Wrightsville Detention Reservoir, VT............ 110
Lakeport, NH, Lake Winnipesaukee Outlet at.......35,149
Lamoille County, ground-water levels in.......... 168
Lamoille River, at East Georgia, VT..............119,155
  at Johnson, VT..................................118,155
Lamprey River basin, capacity of ponds in........ 24

Page
Lamprey River, near Deerfield Center, NH........144,147
  near Epping, NH.................................144,148
  near Newmarket, NH...........................24,144,148
  near Raymond, NH................................144,147
Lamprey River tributary near
    Deerfield Center, NH..........................144,147
  near Epping, NH.................................144,148
  near Raymond, NH................................144,147
Land-surface datum, definition of................ 7
Lincoln, NH, Hancock Branch tributary near....... 142
Little River near Waterbury, VT..................115,155
Lucy Brook near North Conway, NH..................19,147

MacDowell Reservoir, NH, contents of............. 54
Mad River at Goose Hollow, NH.................... 145
Mad River near Moretown, VT......................113,155
Manchester, NH, Merrimack River below............46,150
  Rays Brook at................................... 143
Marden Brook near Epsom, NH...................... 143
Marlborough, NH, South Branch Ashuelot
    River near.................................... 146
Mascoma Lake, NH, capacity of.................... 102
Mascoma River, at Mascoma, NH.................... 79
  at West Canaan, NH.............................. 146
Mascoma River basin, lakes and ponds in,
    contents of................................... 102
McQuade Brook near Bedford, NH................... 143
Meadow Brook near Sandwich, NH................... 142
Mean concentration (sediment) definition of...... 8
Mean discharge, definition of.................... 6
Measuring point, definition of................... 7
Merrimack, NH, Souhegan River at.................145,150
Merrimack County, ground-water levels in........162-165
Merrimack River, at Concord, NH.................41-43,145
  at Franklin Junction, NH........................ 145
  at Nashua, NH................................... 51-53
  near Goffs Falls, below Manchester, NH..........46,150
Merrimack River basin, crest-stage
    partial-record stations in...................142-143
  discharge measurements at miscellaneous
    sites in...................................... 145
  gaging-station records in....................... 26-54
  miscellaneous temperature and specific
    conductance measurements in..................148-150
  reservoirs in................................... 54
Methylene blue active substance, definition of... 7
Micrograms per gram, definition of............... 7
Micrograms per liter, definition of.............. 7
Middlebury, VT, Otter Creek at...................107,154
Mill Brook at Stratham, NH....................... 142
Milligrams per liter, definition of.............. 7
Milton, NH, Salmon Falls River at................ 22
Mink Brook near Etna, NH..........................75,151
Missisquoi River, near East Berkshire, VT.......121,156
  near North Troy, VT.............................120,156
Mollys Falls Reservoir and Peacham Pond, VT,
    contents of................................... 111
Montpelier, VT, reservoirs in Winooski River
    basin above................................... 110
  Winooski River at...............................111,154
Moore Reservoir, NH.............................. 102
Moose River, at St. Johnsbury, VT................ 64
  at Victory, VT.................................. 63
Moretown, VT, Mad River near.....................113,155
Mountain Brook near Raymond, NH..................144,148
Mud Pond tributary near Dublin, NH............... 143

Nashua, NH, Merrimack River at................... 51-53
  Nashua River at................................. 48-50
National Geodetic Vertical Datum
    of 1929 (NGVD) definition of.................. 7
National stream-quality accounting
    network station.........................41,87,123,133
  description of.................................. 10
Natural substrates, definition of................ 8
Networks, special................................ 10
Newfane, VT, West River at........................97,153
Newfound Lake, NH, contents of................... 54
Newmarket, NH, Lamprey River near............24,144,148
Newport, VT, Clyde River at...................... 141
  Lake Memphremagog at............................ 131
North Bennington, VT, Walloomsac River near.....104,153
North Conway, NH, Lucy Brook near.................19,147
North Hartland Reservoir, VT, contents of........ 102
North Hartland, VT, Ottauquechee River at.........80,152
North Springfield, VT, Black River at.............83,152
North Springfield Reservoir, VT,
    contents of................................... 102
North Stratford, NH, Connecticut River at........ 59
North Troy, VT, Missisquoi River near............120,156

Page
North Walpole, NH, Connecticut River at.......... 86
Northfield Falls, VT, Dog River at..............112,155
Nubanusit Brook near Peterborough, NH............37,149
Numbering system for wells and miscellaneous
    sites, description of...................... 10

Ompompanoosuc River, at Thetford Center, VT...... 146
  at Union Village, VT..........................74,151
  West Branch, near South Strafford, VT.......... 146
Orange County, ground-water levels in............ 168
Order of listing stations........................ 10
Organism count/area, definition of............... 7
Organism count/volume, definition of............. 7
Orleans County, ground-water levels in........... 169
Ossipee River at Effingham Falls, NH.............21,147
Ossipee River basin, capacity of lakes
    and ponds in................................. 21
Other data available............................. 13
Ottauquechee River at North Hartland, VT.........80,152
Otter Brook below Otter Brook Dam,
    near Keene, NH..............................100,153
Otter Brook Lake, NH, contents of................ 102
Otter Creek, at Center Rutland, VT..............106,154
  at Middlebury, VT.............................107,154
Oyster River near Durham, NH.....................23,147

Partial-record station, definition of............ 7
Particle-size, definition of..................... 7
Particle-size classification, definition of...... 7
Passumpsic River, at Passumpsic, VT.............. 65
  East Branch, near East Haven, VT............... 62
Peacham Pond and Mollys Falls Reservoir, VT,
    contents of.................................. 111
Pemigewasset River, at Plymouth, NH...........27-28,148
  at Woodstock, NH..............................142,145
Penacook, NH, Contoocook River at................ 145
Periphyton, definition of........................ 7
Pesticides, definition of........................ 7
  program, description of........................ 10
Peterborough, NH, Contoocook River at............ 145
  Nubanusit Brook near...........................37,149
  Town Line Brook tributary near................. 143
pH, definition of................................ 7
Phytoplankton, definition of..................... 8
Picocurie, definition of......................... 8
Piscassic River, at Epping, NH................... 145
  near Epping, NH...........................144-145,148
Piscataqua River basin, crest-stage
    partial-record station in.................... 142
  discharge measurements at
    miscellaneous sites in......................144-145
  gaging station records in...................... 22-25
  miscellaneous temperature and specific
    conductance measurements in.................147-148
Piscataquog River, below Everett Dam,
    near East Weare, NH..........................45,150
  near Goffstown, NH............................. 145
Pittsburg, NH, Ad Chase Brook near............... 143
  Big Brook near.................................55,150
  Connecticut River at
    First Connecticut Lake near..................56,150
  Connecticut River below Indian Stream near.....57,150
Plymouth, NH, Pemigewasset River at...........27-28,148
Polychlorinated biphenyls, definition of......... 8
Poor Farm Brook near Gilford, NH..............32-33,149
Poultney River, below Fair Haven, VT............105,154
Programs, Special................................ 10
Publications on techniques of
    water-resources investigations............... 14

Radiochemical program, description of............ 10
Randolph, VT, Ayers Brook at.....................76,151
Raymond, NH, Lamprey River near.................144,147
  Lamprey River tributary near..................144,147
  Mountain Brook near...........................144,148
Rays Brook at Manchester, NH..................... 143
Recoverable from bottom material, definition of.. 5
Reservoirs (see Lakes and reservoirs).
Richelieu River (Lake Champlain) at
    Rouses Point, NY............................123-130
Rouses Point, NY, Richelieu River at............123-130
Rumney, NH, Baker River near....................145,148
Runoff in inches, definition of.................. 8
Rutland County, ground-water levels in........... 169

Saco River basin, crest-stage partial-
    record stations in........................... 142
  gaging-station records in...................... 18-21
  miscellaneous temperature and specific
    conductance measurements in.................. 147

Page
Saco River, near Conway, NH......................20,147
St. Johnsbury, VT, Moose River at................ 64
St. Lawrence River basin,
    gaging-station records in...................105-141
  miscellaneous temperature and specific
    conductance measurements in.................154-156
Salmon Falls River at Milton, NH................. 22
Salmon Falls River basin,
    contents of lakes and ponds in............... 22
Sandwich, NH, Meadow Brook near.................. 142
Saxtons River at Saxtons River, VT...............85,153
Second Connecticut Lake, NH, contents of......... 102
Sediment, explanation of......................... 13
  definition of.................................. 8
Smith River near Bristol, NH..................30-31,149
Soucook River near Concord, NH................... 44
Souhegan River at Merrimack, NH.................145,150
South Strafford, VT, West Branch
    Ompompanoosuc River near..................... 146
Special networks and programs.................... 10
Specific conductance, definition of.............. 8
Squam River at Ashland, NH.......................29,149
Square Brook near Freedom, NH.................... 142
Stage and water-discharge records,
    explanation of............................... 11-12
Stage-discharge relation, definition of.......... 8
Stark, NH, Upper Ammonoosuc River tributary near. 143
Station number................................... 10
Stevens Brook near Wentworth, NH.................26,148
Stony Brook tributary (Merrimack River basin)
    near Temple, NH..............................47,150
Strafford County, ground-water levels in......... 166
Stratham, NH, Mill Brook at...................... 142
Streamflow, definition of........................ 8
Streptococcal bacteria, definition of............ 5
Substrate, definition of......................... 8
Sugar River, at Sunapee, NH...................... 146
  at West Claremont, NH.......................... 81
Sunapee, NH, Sugar River at...................... 146
Sunapee Lake, NH, contents of.................... 102
Surry Mountain Lake, NH, contents of............. 102
Suspended, definition of......................... 9
Suspended recoverable, definition of............. 9
Suspended sediment, definition of................ 8
Suspended-sediment concentration,
    definition of................................ 8
Suspended-sediment discharge,
    definition of................................ 8
Suspended-sediment load, definition of........... 8
Suspended, total, definition of.................. 9

Taxonomy, definition of.......................... 9
Temperature, water, explanation of............... 13
Temple, NH, Stony Brook tributary near...........47,150
Terms, definition of............................. 3
Thetford Center, VT, Ompompanoosuc River at...... 146
Tilton, NH, Winnipesaukee River at...............36,149
Time-weighted average, definition of............. 9
Tons per day, definition of...................... 9
Total, definition of............................. 9
Total (as used in tables
    of chemical analyses)........................ 9
Total coliform bacteria,
    definition of................................ 5
Total in bottom material,
    definition of................................ 5
Total, recoverable, definition of................ 9
Total sediment discharge,
    definition of................................ 8
Town Line Brook tributary near
    Peterborough, NH............................. 143
Townshend Reservoir, VT, contents of............. 102
Twin Mountain, NH, Cherry Mountain Brook
    tributary near............................... 143

Union Village Reservoir, VT, contents of......... 102
Union Village, VT, Ompompanoosuc River at........74,151
Upper Ammonoosuc River, near Groveton, NH........60,151
  tributary near Stark, NH....................... 143

Victory, VT, Moose River at...................... 63

Walpole, NH, Connecticut River at................ 87-95
Walloomsac River near North Bennington, VT......104,153
Warner River, at West Branch, near Bradford, NH..39,149
Washington County, ground-water levels in.......169-170
Water analysis, explanation of................... 13
Water-quality records, explanation of............ 13
Water temperature, explanation of................ 13
Waterbury Reservoir near Waterbury, VT........... 114

Page
Waterbury, VT, Little River near................115,155
  Waterbury Reservoir near........................ 114
WDR, definition of................................ 9
Weathersfield, VT, Black River at................82,152
Webb, NH, South Branch Ashuelot River at.......... 146
Webster, NH, Blackwater River near...............40,149
Weirs Beach, NH, Lake Winnipesaukee at............ 34
Well number....................................... 10
Wells River at Wells River, VT.................... 72
Wells River, VT, Connecticut River at............ 68-71
  Wells River at.................................. 72
Wentworth Location, NH, Diamond River near........ 15
Wentworth, NH, Stevens Brook near................26,148
West Alton Brook near Alton, NH................... 143
West Canaan, NH, Mascoma River at................. 146
West Claremont, NH, Sugar River at................ 81
West Hartford, VT, White River at................77,152
West Hopkinton, NH, Contoocook River at..........38,149

Page
West Lebanon, NH, Connecticut River at...........78,152
West River, at Jamaica, VT.......................96,153
  at Newfane, VT.................................97,153
White River at West Hartford, VT.................77,152
White River Junction, VT, Connecticut River at...78,152
Williams River, at Brockways Mills, VT...........84,152
Windsor County, ground-water levels in............ 171
Winnipesaukee River at Tilton, NH................36,149
Winooski River, at Montpelier, VT...............111,154
  near Essex Junction, VT...................116-117,155
  North Branch, at Wrightsville, VT.............109,154
Winooski River basin, VT, reservoirs in.........110,111
Woodstock, NH, Pemigewasset River at............142,145
Wrightsville Detention Reservoir, VT,
    contents of................................... 110
Wrightsville, VT, North Branch
    Winooski River at...........................109,154
WSP, definition of................................ 9

☆U. S. GOVERNMENT PRINTING OFFICE: 1981--700-536--277

October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons